

# THE MICHIGAN FARMER,

A WEEKLY JOURNAL OF AFFAIRS

Relating to the Farm, the Garden, and the Household.

NEW SERIES.

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## The Michigan Farmer,

R. F. JOHNSTONE, EDITOR.

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The MICHIGAN FARMER presents superior facilities to business men, publishers, manufacturers of Agricultural Implements, Nursery men, and stock breeders for advertising.

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## The Farm.

### On the Structure and Properties of Wool.

The propriety of "crossing" considered, and practically demonstrated.

BY HENRY GOADBY, M. D., F. L. S.  
PROFESSOR OF VEGETABLE AND ANIMAL PHYSIOLOGY, AND  
ENTOMOLOGY, IN THE STATE AGRICULTURAL COLLEGE OF  
MICHIGAN, AUTHOR OF A TEXT BOOK OF VEGETABLE  
AND ANIMAL PHYSIOLOGY, ETC.

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Concluded from page 57.

The tissues manufactured from the wool of the Cashmere goat are the finest, and most beautiful in the world; but what can be done with the common goat? The hairs of the former are fine, soft, flexible, elastic; the hairs of the latter coarse, rigid, inflexible; how can such contrary elements be associated in the construction of a common tissue, without damage to it? The attempt to "improve" such a magnificent wool is simply supererogatory: no improvement is needed; every want is supplied; it is already perfect as it exists in nature. But if it be thought necessary to adulterate this wool, it might be done by a much more simple process—by adding any given per centage of the hairs of the common goat: under such circumstances they could not possibly be more distinct and separate than they are at present. The effect of such a proceeding, commercially, would be to damage the wool, and depreciate its value, as some manufacturers would have all the hairs of the common goat picked out—a labor that must be paid for.

If the manufacturers of this country are indifferent to the high claims of such a wool as the Thibet goat produces, it would be better to export it; there are plenty of English manufacturers who would gladly pay a remunerative price for the pure staple—the impure, they might not care about, as the mohair gambrons are made of a hair, finer

than the common American goat, and if adulteration be thought necessary, they could use a better material—the hairs of the English goat are considerably finer than those of the American goat.

But as these facts are best demonstrated by examples, a figure of the wools of the pure Thibet goat is given (fig. 40); in it the hairs of all sizes are faithfully represented, having been measured by the same instrument used throughout these examinations.

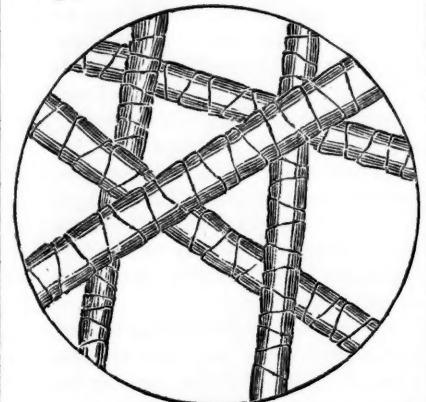


Fig. 40. The Wool of the Thibet goat bred pure.

The wool of the half breed (half Cashmere, half common goat) is shown in figure 41; the most prominent and conspicuous part of it is a portion of the colossal hair of the common goat: this hair measures twelve squares of the micrometer,—besides it is so large that it has crowded out the hairs of the Thibet goat which lay beside it. They are not, however, all of this size, for, like all other hairs they are taper, and run to a point, and a narrow portion may be seen; the smallest of them measures about four squares; seven, eight, and nine squares are common, while not unfrequently they measure as much as the hair selected for representation. The specimen has been prepared in Canada balsam, rendered necessary by the superior density of the hair of the common goat; it is now so refractive that the cortical layer is plainly distinguishable, and also the peculiarly

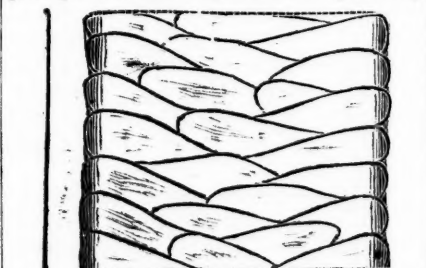


Fig. 41. The Wool of the half breed, in which the hair of the common goat predominates.

arranged medulla within it, which consists of cells filled with air, causing intense blackness; there is no cuticular layer to be seen. Beside it, and crossing beneath, are the hairs of the sire (the Thibet goat), which, by the highly refractive powers of the balsam, are rendered transparent; no such medulla can be found in the latter, as characterizes the former specimen, so that these hairs, microscopically and otherwise, are totally distinct, and present, there can be no doubt, a broad specific difference. The difficulties of con-

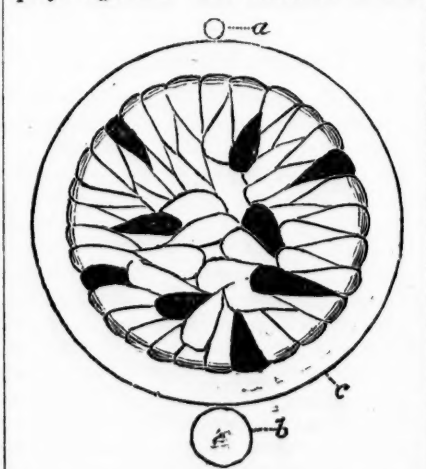


Fig. 42. A transverse section, of the hair of the common goat c, and the diameter of the smallest and larger samples of Thibet wool marked a and b, the whole exhibiting the comparative size of the two kinds of hair.

structing a tissue with any pretensions to fineness and beauty, out of such contrary elements, has already been insisted upon, but another, and more convincing mode of exam-

ining this part of the subject remains. The diameter of these hairs, respectively, has been given as they lie in a longitudinal direction—we will see how they appear in a transverse section. The following figures (fig. 42,) have not been made really from sections of the Cashmere wool, but a section of the hair of the common goat, has been made; letter a, indicates the smallest hair (one square), and b, the largest (two squares) of the Thibet goat; c, a hair of twelve squares, of the common goat; the question is asked of the reader, what kind of tissue can possibly result from such an association? It is hoped that this plan of illustration may satisfy those whom it most concerns.

But another difficulty exists in regard to the common goat: does it possess imbrications? For a long time, and under severe examination, the contrary appeared to be the fact, but under the influence of caustic soda, a few imbrications of large size, and very irregular, were discovered near the point of the hair, and this not in every specimen—the rest of the hair is perfectly smooth. That they have no felting properties is apparent from the fact that they fall out of a sample of mixed wool containing them. How can a textile fabric be made with such a material? They may be woven into a tissue, but have no inherent power to retain their position; then, too, they are short, not exceeding two inches in length.

The three-fourths breed, and seven-eighths breed, are not illustrated because they offer no new features; the common goat is still there, and hairs of twelve squares are found as much in the seven-eighths, as in the half breed. There appears to be only one point of difference in the seven-eighths as compared with the other cross breeds, and this is, that the nearer the approximation to purity the fewer are the hairs of the common goat, but so long as they can be found, they exist in their full integrity. One curious fact remains to be mentioned: the common goat's hairs, instead of being straight, with parallel sides, sometimes shrink to half their diameter, and then gradually expand again to their full dimensions, this is not found in all the hairs, but where it exists, it is several times repeated in the same hair: this has never been seen in the hairs of the Thibet goat.

Since the foregoing was in type, four other specimens of goat's wool have been forwarded, accompanied by an urgent solicitation to examine them: they are as follows:

- No. 1.—A Cashmere, a common goat, one year old, first fleece.
- No. 2.—A Cashmere, a common goat, one year old, first fleece, buck.
- No. 3.—Same animal, wool pulled, not cut.
- No. 4.—Undercoating of a grade kid.

No. 1 exhibits a more than usual proportion of the hair of the common goat; if the specimen be shaken, they fall out, and are always so prominent they can be picked out with ease: No. 2 displays fewer hairs of the common, as there are three fourths of the Thibet goat, still they are there, and of full size. No. 3, from the same individual, but pulled in contradistinction to cutting, does not show the common goat at all—this specimen appears as if pure Cashmere; still, the examination of the cut specimen proves that they are there, but being so much larger, coarser, and stronger, they appear to have successfully resisted a pull, which the finer wool could not withstand.

No. 4, the undercoating of a kid, is very beautiful, and in no respect differing from a wool of pure blood. It is probable, that as the common goat does not produce this layer, it has no power to affect its integrity, and consequently is not represented in this particular tissue.

But the all important question "does wool deteriorate or improve in this country" remains undetermined. Starting with the imported Saxony wool, figure 31, and comparing it with figures 33, 34, 36, 37, and 38, it will be seen that the worst of them is equal, and the majority superior to it. These wools in their native cover a wide space of ground—two of them came from the State of New York, one from Ohio, and two from Michigan; neither are any of these extraordinary samples, for on the contrary, many such can be found in the specimens sent for examination

from all these localities; hence it will appear that if the farmers and sheep breeders of this country will it, and persevere, there is nothing to prevent them from raising wool that in extraordinary fineness, and thorough excellence would be unequalled upon earth.—To accomplish this degree of perfection, however, it is above all things necessary, that they abandon and forever all idea of "crossing;" examples enough have been given to show the damaging tendency of this insane proceeding. What matters it that two or three stock breeders devote their best energies and their capital to preserve intact their breeds of sheep, when, whatever they sell of their flocks, are doomed to be matched with other breeds, and the fine, pure wool they brought be subject to spoliation, and rendered comparatively worthless. In every community thick, warm clothing is at least as valuable as superfine broadcloth; no matter how coarse the wool therefore, keep it pure and it will always command a remunerative price.

So, too, with the goats; left to themselves, the quality is of the greatest excellence; but the desire to make money more rapidly, originates very clever inventions and contrivances, and by these, a very beautiful wool is not only spoiled, but rendered worthless for manufacturing purposes. Had the Thibet goat been kept pure, its wool must have commanded the very highest price.

The day is coming,—nay, it has arrived, that must revolutionize the wool trade, and the entire question must be subject to a great revulsion; for the first time, in all human probability, the microscope has been employed in a series of long, laborious and careful investigations, which have developed facts that no one could have foreseen; from this time forth, whether wool be submitted for adjudication at a State fair, or to a purchaser, it will have to be subjected to the crushing ordeal of a microscope! In the future every parcel of wool will be assessed at its exact value; in that day fine and pure wools will command a high price, coarser and pure wools scarcely, if any less; but woe to those who cross their sheep!

It only requires that the foregoing facts be made sufficiently known, and in a practical country like this they will be seized upon with avidity, and rendered useful to the community.

The examination of such a vast number of specimens, obtained from so many sources, has necessarily made the author acquainted with the most reliable flocks, and most truthful men: to mention them by name, however, notwithstanding the great pleasure it would afford him so to do in relation to some, would be invidious to the rest, and as the wools were procured by the editor of the MICHIGAN FARMER, and the author has no pecuniary or other interests in the matter, he feels unwilling to incur the ill will of any one, especially gratuitously.

So much has been said, and insisted upon in relation to the microscope, that a few particulars in regard to it, especially as connected with this particular question, may not be uninteresting. Common instruments, such as are sold by Opticians, at from \$20 to \$50, are entirely useless. No less power can be used to advantage, in the investigation of wools, than 500 diameters—the instrument employed throughout these examinations, cost \$350; but a microscope fully equal to the necessities of the wools, and admirably adapted for all other purposes, can be obtained from Messrs. Powell & Leland, Seymour Place, Euston Square, London, for \$96, and it is easily imported, and at small cost, through the Transatlantic Express Company, Messrs. Edwards, Sanford & Co., of New York, and Cornhill, London.

### The Prices of Fat Cattle.

There are few opinions more stable or better settled than that our State produces beef cattle of a very low order, and that most of the droves collected and sold under the name of Michigan stock must be sold at a low price any way. That good fat cattle, of a high order of excellence, can be raised in this State, we know, and that they can be brought into

market at as great a profit here as any where, we have occasional instances to prove beyond dispute. We wish to call the attention of our readers to a few facts in this connection.

In the reports of the New York market, as given in the N. Y. Tribune, we find it stated that "Isaac Bradley sold 34 Michigan oxen and steers, for Bailey, the drover, at 8 and 10 cents on their estimated weight." This estimated weight depends altogether upon the condition of the animal; hence the seller loses in two ways if his cattle are in poor condition, for this estimate may be fixed at any ratio between 50 and 64 pounds to the 100 pounds of live weight, and the better the condition of the animal, the higher the rate of nett weight, and with the high proportion of nett weight, the price also goes up in a like measure. For instance, an animal that weighs 1,200 pounds gross, and is such a mass of bone and hide that his quarters will not yield more than 50 pounds of beef to the 100 of live weight, or 600 pounds estimate, will only bring 8 cents per pound, whilst the same animal, if in condition so that the estimate for him would be 700 lbs nett, when dressed, would bring 10 cents in the same market, making a difference of \$22 to the seller.—Our readers will see, therefore, how great is the premium offered feeders to put their cattle into market in good condition. To exhibit this more fully, we will again have recourse to another statement of the same report. L. Beers sold two pairs of the old red oxen of Connecticut; one pair were bred by Robert Clark, of Woodbridge, Connecticut, and the other by Wm. A. Clark, of the same place. The first pair were six years old, and weighed alive 4,900 lbs and sold for \$400, or nearly 8½ cents per pound gross. The price, estimating these cattle to give 62 pounds to the 100 lbs cross, would be just about 13½ cents pound. The other pair weighed 5,400 lbs, and were sold for \$460, or the same rate, nearly, estimated weight. The difference in the estimate, therefore, and in the rate per pound, it will be seen, makes a double gain to the feeder.

In our own market, we have the sale last week of a pair of cattle to Mark Flanagan, that weighed 4,532 pounds, and which bro't actually over 6 cents per pound to the seller. We have also had a pair slaughtered by Wm. Smith, the butcher, which were bred by a farmer of Dearborn, that were six years old. These cattle weighed alive 4,980 pounds, and when dressed the weight of beef was 2,800 lbs, showing a return of 56 pounds of beef for 100 lbs of live weight. The rough tallow weighed 520 pounds; the hides weighed 255 pounds. The beef when dressed was worth on an average 12 cents per pound, the tallow sold at 7½ cents, and the hides at 7 cents. The offal paid the expense of killing and dressing. We will see, therefore, that the result was a return for the first cost of the cattle as follows:

|  |          |
|--|----------|
| 2800 lbs of beef, at 12½ cents per lb..... | \$350 00 |
| 520 lbs rough tallow, at 7½ cents.....     | 39 00    |
| 255 lbs of hide, at 7 cents.....           | 18 55    |

|   |          |
|---|----------|
| First cost of the cattle.....                                     | \$466 55 |
| Balance for labor of cutting up and selling off, and wastage..... | \$106 55 |

This it is recollected is premium beef, and it is not all that are worth this estimated rate to the butcher, because he may not have customers who will pay the extra price; but it is a well known fact, that whenever first rate cattle of this kind are known to be ripe, there is no difficulty in getting a purchaser. Will our Michigan farmers take a hint from these facts, or will they continue to send into market only "scallawags!"

### The Wayne Co. Agrl. Society.

The Wayne Co., Agricultural Society, it will be seen by the following letter from the Secretary, has made arrangements to unite with the people of Ypsilanti for the present season in holding an annual fair:

R. F. JOHNSTONE: Dear Sir:—At an adjourned meeting of the Wayne Co. Agricultural Society, held at Plymouth on the 10th, inst; it was deemed inexpedient to hold an exhibition in the county the present year; but to join with the people of Ypsilanti in holding a Fair at that place next fall.

Meeting adjourned till the first Tuesday of Sept. next, at a place to be designated by the Secretary.  
J. S. TIBBITS, Sec.  
Livonia, 14th, Feb. 1859.



### Cattle—a Beef Breed and a Milch Breed combined.

A race of cattle that shall be good fatteners, quick and profitable feeders, the cows yielding a large quantity of rich milk, and when desired fattening rapidly and profitably, would be a great acquisition to any country. I do not mean, a breed in which both qualities shall be combined in action, during the same period of time. This would be asking too much, and, perhaps, not desirable if attainable. Is there such a breed as I have described? Can there be one produced, either by crossing, or by cultivating both qualities in some breed already established?

At the present day, we are told, by almost every agricultural writer and journal, that no race possesses both of these qualities in any considerable degree, and that the better they are in one capacity, the poorer will they be found in the other; and are lead to believe that it is impossible to find, produce, or so cultivate a race that it shall be good in both capacities; and that, if we attempt to improve the same race in both qualities, we shall obtain a set of animals of very moderate capacity in both respects, but without any great excellence in either.

A modern author, in his work on cattle, argues that nature has provided different races, or at least, different qualifications in the several races, adapting the secretions, tendencies, and qualifications of them, to the one, or to the other of these objects; that for each purpose, these secretions and tendencies are entirely different; that the physical organization, and that even the outward conformation of the very frame of the animals, are different, and such that they can not be conjoined without injury to the animal, not for one purpose only, but in both capacities: asserting that the organization that will give the most and best milk, is exactly opposite to that which will give the most and best beef. If this theory is correct, the question is settled. There is no appeal from nature's laws: and we shall be obliged to cultivate one race for beef, another for the dairy, and probably, still another for work: one man must be exclusively a beef producer, another a butter producer, and so on to the end of the chapter; each requiring a different breed which he must rear for his specific business alone.

But is this theory correct? I, for one, must dissent. I do not believe it. And I think the facts are mostly on the other side of the question; that the secretions and tendencies, instead of being so very different, are after all, quite similar and quite compatible with each other, only being, at most, incapable of acting in two spheres at the same time, yet capable of acting alternately in each; that they are also cultivable qualities which, in one race, may have been called into action in one channel, and neglected in the other, thus becoming partially fixed in that channel, but still capable of being brought into action in the other, and improved until of superior merit therein: while, if a set of animals were taken, and both qualities carefully cultivated in them, they would improve in both capacities, never becoming deficient in either. But I will dismiss theory—facts are what we want. Facts well authenticated, or derived from credible authority, are of more force than many theories, because the theories must themselves depend upon well authenticated facts for all their force.

Among our native cattle, many cows, superior for dairy purposes, when dried of their milk, will fatten more readily and profitably than a majority of those which are less valuable as milkers. We have one race, closely approximating to the characteristics of a thorough-bred race,—the red cattle of New England,—which are excellent in the dairy, while for beef purposes they stand at the head of all our native races. Youatt, in his treatise on cattle, gives us many incidental facts, from which we may determine how the case stands among the British races. He says: "A cross of the Sussex and Suffolk breeds, has been made, retaining, to a very fair degree, the fattening propensity of the one, and the disposition of the other, to give a considerable quantity of good milk;" of the Sussex, that "the cows are principally kept for breeding, and it can not be denied that they are in fair condition even while milking;" that "no beasts, except their kindred, the Devons and Herefords, will thrive so speedily after being dried; the secretions being stopped, the Sussex cow will fatten even quicker than the ox;" of the Glamorgans, that "the ancient breed of the vale of Glamorgan were good milkers, and fattened kindly;" of the Montgomerys, that "the cattle of that part of the country,—vales of the Severn and Vyrnwy,—are not only fair milkers, but show great aptitude to fatten;" of the Flintshires, that "they appear to mingle the rare quali-

ties of being excellent milkers and quick feeders;" of the Buchans; that "they are peculiar to that part of the country, and deservedly esteemed for their milking qualities, and the beef they produce;" that, "notwithstanding their small size, they will yield from twelve to eighteen, and sometimes twenty-eight quarts of milk per day." And of their profit for fattening, we can partially judge when he tells us, that "that small district receives, annually, near three quarters of a million of dollars for cattle sold to the southern cattle drovers, of this breed alone."

Here we have many cases in which both qualities were, and are united, without appearing in the least degree incompatible. And if these qualities, when combined, can be indefinitely cultivated, without the improvement of the one counteracting the improvement of the other, then our position is established. To show that they have been thus conjointly cultivated and improved, a few more examples may be cited from Youatt's work. Of the old Arran breed, he says: "They yielded very little milk, although what they did give was good;" and in the property of fattening;—that "they were inferior, and used to be scarcely saleable to the southern drovers, at any price;" "but the cattle husbandry has of late improved, and the breed has essentially changed. Now they are gentle tempered, and kindly feeders; and the produce in milk has kept pace with the general improvement, and is excellent in quality." Of the Aberdeenshire: that they have improved; "the present breed are heavier in carcass, give more milk, and yet, at the proper age, fatten as readily as the others;" "West Highlanders; that "not only on good pasture, but on that which is somewhat inferior, the breed has progressively improved, become nearly double its original weight, without growing above its keep; the cows have increased from six or eight quarts of milk per day to from twelve to fourteen quarts; of the Fifeshire; that "in no country is the character of the cattle more uniform; in few parts do they so decidedly unite the best qualities that cattle can possess; they fatten quickly and fill up well at all the choice points; are hardy, fleet, and travel well; are tame, docile, and excellent for work, whether on the plow or cart, and far from unprofitable in the dairy; a good cow will yield from twenty to twenty-eight quarts of milk per day, and from seven to nine pounds of butter, or ten to twelve of cheese per week, for some months after calving, and are in milk ten or eleven months of the year." The Ayreshires are another example in which the breed, originally, possessed neither qualification in a profitable degree, and in which both qualities have been simultaneously improved, until they are highly profitable in either respect. Mr. William Aiton, a reliable author, states that "they were mostly black, and called black cattle; had large, high standing horns, hair coarse and standing up, their skin thick and adhering to the bones; the bones large and coarse; the bodies lank; and the cows giving but two, or at most three Scotch pints of milk per day;" that "he has been an eye witness to the change wrought in them, and is unable to account for it, otherwise than by better attention to crossing, rearing, and feeding;" that "he has no doubt but a tinge of foreign blood may have come into their veins, but is confident that the principal improvement has been better treatment."

This breed, at the present day, are not excelled, if equalled, by any in the kingdom as a dairy breed; and their advocates claim that they surpass even the Shorthorns for beef purposes. Youatt says of this: that "he believes their fattening propensities have been exaggerated, but they will feed kindly and profitably, and their meat be good;" and that "they unite, perhaps, to a greater degree than any other breed, the supposed incompatible properties of yielding a great deal of beef and milk."

Now, if we can have animals which shall combine both of these desirable qualities, it behooves breeders, particularly of the thorough bred races, to be on their guard lest they lose to their herds the one or the other of these qualities. Many of them are pursuing a course calculated to diminish the value of their cattle for practical results. They are rearing, merely, a calf producing race, having in view the increase in numbers, the size, sleekness, and consequent saleableness, only. To such an extent has the degeneracy been carried in some herds, particularly among the Shorthorns, that the milk giving capacity is almost extinguished; but as it is retained, in a good degree, in other herds, which do not appear to be less worthy, in consequence thereof, for beefing purposes, we think it high time that breeders, and all others, should awaken to the importance of

improving the dairy qualities, as well as the beef qualities of their stock. They should remember that the day will inevitably come when their respective breeds will be called upon to show, practically, their adaptation to yielding actual profit in both capacities.—If they are deficient in both they are worthless. And if deficient in but one, they are worth only half so much as if they combined both qualities.

See to it breeders! that the results read improvement, and not degeneracy! T.

### Hungarian Grass.

EDITOR MICHIGAN FARMER:—In reply to your inquiries, regarding Hungarian grass, or millet, I will answer that I have seed for sale at \$2.50 per bushel, delivered at the depot of the M. C. R. R.

One third of a bushel is an intermediate quantity required between thick and thin sowing, and will answer the purposes for which it is grown. Any soil suitable for oats, barley or corn, and prepared by the usual process of plowing and dragging previous to sowing, and dragging after with a light, fine drag, will be found good for this grass. As the soil approaches to a high state of fertility, it will grow grass affording more seed, but the stalk becomes less valuable for fodder, from the fact of its solidity, or woody fibre; hence a difficulty of masticating.

The seed may be sown from the 20th of May to the 20th of June advantageously.—Frost destroys it at once; it grows rapid on the whole, and for all purposes, the first of June may be considered most suitable here. The time for cutting is when the joints look green and the stalk shows a tint of orange color; at this period it answers the purpose of seed and fodder most admirably. Like timothy grass, the seed matures in the process of curing it, which requires about the same time that it does to cure clover hay.—The less it is handled the better, providing the weather is favorable; you save more seed and incur less expense. From the swath, put it in cocks with the fork, the loss of seed and great weight will preclude the use of the rake; here it should remain until the practiced eye of one skilled in curing hay pronounces it suitable for the covor. The waste in stacking must be great unless properly thatched.

I have never tried it as green food. When compared with timothy, I think it fully equal, even though the seed is off, and far superior when it is left on, either for sheep or horses, for which animals it is best adapted. Sheep will strip off the leaves and heads, and horses will consume most of the balance, when it is fed in place of hay. When fed to them entire they do better than when fed oats in the sheaf.

I cannot recommend it for cattle, unless it be for soiling them: the stalk is too rigid when cured, and the seed too small for mastication, hence they seem to reject it. Last season I procured and sowed one bushel the 21st day of June, on the Huron river flats, three and a half acres. The soil black sandy loam, prepared as for oats or corn; cut it the first of September, cured and hauled in the barn nine loads, the weather was highly favorable. I am much pleased with it, especially when a long and bleak winter stares one in the face (and there is no dodging here, for they will come), and a heavy stock of domestic animals to provide for.

Respectfully, yours, &c.,

JOHN STARKWEATHER.

Ypsilanti, Feb. 22, 1859.

### Merino Sheep and Reasons for Crossing.

EDITOR MICHIGAN FARMER—Dear Sir:—I have been examining the new form of the MICHIGAN FARMER, and of course have not overlooked the statements of your wool "examinations." I think that you have carried the subject farther, with regard to the internal structure of wool, than any I have chanced to peruse; you have established by ocular evidence, what, to me previously, was a supposition. You remark in a recent number of the FARMER, that from the developments in your "wool examinations," "that I may, perhaps, change my mind on the cross-breeding of Merino sheep." I will now respectfully submit for your scrutiny my reasons for not altering or changing my convictions.

And I will now state that in breeding a first order of Merino sheep, that the "imbrication" of the wool is only an incidental quality, of many good qualities which make the whole, of a good Merino.

I will now enumerate what I consider essential qualities of a fine wool sheep, viz:—As large size as can be had without superinducing coarseness; as good form as can be had and have essentially Merino form; good constitution—this by many is supposed to be

entirely due to form, but this is not wholly true; the Saxon have lost much of their original hardness by in-and-in breeding, but many of them have the most profitable form of any variety of the Merino; thickness of fleece; fineness; evenness of fibre of all parts of the fleece; length equal over all parts of the body, and style of wool, which properly includes crimp and brilliancy of wool; the crimp indispensable in felting, brilliancy necessary to give the best color; elasticity, another principal in felting and some other external evidences, such as mellowness and elasticity of skin, fineness of the bone, &c. It is hardly necessary to say, that you may find in some Saxony flocks, a sheep whose wool would make the "beau ideal" of what you seem to think the right kind of Merino sheep, but which would not possess another point of excellence. There is one more property of good wool, to which I have not adverted, and which I consider the most important quality, perhaps, of fine wool, so far at least as the wool grower is interested, to wit: softness, and this obtains in an eminent degree in the Silesian wool. There was a doctrine enunciated in the MICHIGAN FARMER, on the subject of wool, which conflicts so positively with all of my preconceived opinions of the value of wool, that I will quote the remark "that any wool with the same number of imbrications is equally fine," "and of the same commercial value;" (see Mich. Farmer, April No., 1858.) This would make the Leicester wool (although from twenty to twenty-five times the matter of some others) equally fine and equally valuable.

My reasons for cross-breeding, besides those enumerated, I have not time at present to give. I do not consider crossing valuable *per se*, but only as it allows a wider range for selection, and obviates the danger of in-and-in breeding. I will, in passing, remark that so far as Merinoes are concerned, there never was a system of greater *jumble crossing* than the American Spanish Merino have been subjected to; all of the flocks that have constituted the other variety of Merinoes have been tumbled in a mass promiscuously, without apparent thought or consideration.

I send you a few samples of Silesian and French wool, which I would be pleased to have you compare with full blood French or Spanish, according to the approved tests of the experienced buyer.

Respectfully, &c., N. S. SCHUYLER.  
Birmingham, Mich., 1859.

[Mr. Schuyler, in the above remarks, seems to ignore the fact, that the examinations reported in the FARMER were of wool of different qualities and kinds, not of sheep. No such examinations have ever before been made, and he will see by the further perusal, that when the same examinations of the hair of the goat were made, the effects of crossing, on the productions of the skin were analogous, and bore out the correctness of the facts stated.

The inference drawn by the quotations from the FARMER, are exaggerated as we think, and therefore we give the exact quotation referred to, which is as follows; and it will be seen that the distinction is made between the *real* and *apparent* fineness of wools of the same breed:

"All the wools with 150 to the inch, are really fine, although one specimen (taken from a sample furnished by Mr. Peckham of Parma) was almost one third finer than the rest, yet, for all practical purposes, it follows that, *any wool with the same number of imbrications is equally fine.*"

"The wool of Mr. Scuyler's Spanish ewe, is worth (commercially) exactly the same price as Mr. Peckham's apparently finer Spanish wool, for the *real* fineness must necessarily depend upon the number of imbricated scales in a given space."

### Cashmere half-breed Goats.

There is at present a very great trade going on at the south in the Cashmere Goat speculations we say "*speculation*," for it does not seem to have as yet resulted in a healthy commercial demand for manufacturing purposes. The *Nashville Union* informs us that W. S. Mandy, the Secretary of the Sumner Cashmere company, has recently reported to the Stockholders that nearly thirty thousand dollars worth of Cashmere Goats have been sold from their flocks during the past season, *without disposing of a single pure blood*, the sales being made from *grade males*. "Sixteen thousand dollars worth of which have gone to the State of Kentucky, and common goats have there risen to the value of ten dollars per head, with a brisk demand."

We think this operation as a mode of selling high priced common goats may be profitable for the present, but will be far from realizing the effects sought to be produced. The grades will eventually be found worthless, or nearly so. The crossing of the common goat with the Thibet or Cashmere, yields an ani-

mal with a fleece that is not a hybrid production. The hairs of the common goat which are worthless for textile fabrics, never acquire the felting quality of the Cashmeres, and whilst as a matter of course the crossing of the common goat with the male of the Thibet gives an animal that yields a fleece which may in greater or less proportions contain the fine Thibet wool, that wool is so mixed up with large horny, smooth and coarse hairs of the common goat, not at all modified in structure, with no modification of their nature, that the whole clip must be almost worthless as an article for manufacture. In fact so smooth are the hairs thus mingled with the Thibet wool, that they can be pulled out, or they will even fall out by their own weight. They can not be woven into cloth, as they lack all felting properties. That the Thibet or Cashmere goat is an animal of high value, we most cheerfully concede, and every attempt to propagate it should be encouraged, but this wholesale deterioration, must be speedily followed in the course of a few years by a complete loss of all the valuable characteristics of the pure blood, and more especially will this be the case, if as is stated above, the breeders are not even using pure bred males, but are breeding from grade bucks, thus hastening the depreciation of the flocks as fast as possible, and pursuing a course which must practically affect and depreciate the national character of the whole of the stock, no matter in whose hands they may be. For a confirmation of this opinion, we refer not only to the principles of breeding which govern in propagating crosses of all other animals, but also more particularly to the examination of the wools of the pure blood and grades which have appeared in the MICHIGAN FARMER, and are illustrated so that he that "runs may read," and understand the fault that has been committed in thus attempting to cross two separate and distinct species of the goat.

### FARM MISCELLANEA.

#### Honey Blade Grass.

This variety appears to be a new candidate for favor, and seems to have much of the Shanghai nature in its composition so far. The person who has it for sale, states that it can be had in bags at three dollars per bag, each bag containing sixteen pounds. It is stated also that this grass will produce at the rate of eight tons of dry hay per acre, of a quality superior to the best Timothy. Now all this we don't dispute, it may be all true. This wonderful production that no one either in Europe or America has ever heard of before, and which the sharpest discoverers in the old world have as yet been unable to see the merits of, although each bag of seed is "stamped with the Hungarian coat of arms," may grow hay that in size and denseness would rival a cane brake in a Southern swamp. It may enable a farmer who has long been looking out for the Philosopher's Stone or the long lost seal of Solomon, to feed a whole flock of sheep on nothing beyond one acre, and then be able to shear ten pounds of wool worth fifty cents a pound from six month's lambs, but we don't believe it will. When you send your three dollars for this fancy grass recollect the summer is coming, and you must "beware of mad dogs."

#### A very good notion.

The *Niles Inquirer* states that the means of the Berrien County Agricultural Society being somewhat limited, a number of the ladies and gentlemen of Niles and other places in the county have offered to give special premiums, on such productions as they may select:—

"For instance, Mr. A. wishes to encourage the production of fine horses, he offers a premium of \$5, or \$10, (to be known as her, or his special premium,) for the best horse. Mr. B wishing to improve the quality of the bread for the use of the present or future generations, gives a like premium for the production of the best bread, the product of a young lady of the county not over a certain age. Mrs. C being desirous of encouraging the fine arts, tenders a premium for the best painting in water colors. Mr. D for the best model of some agricultural implement and so on."

This is a good plan and shows the citizens understand how to make their society useful and profitable. We have heard several suggestions of the same kind in reference to thus aiding the efforts of the State Society, but as yet nothing has been done. This system is very prevalent in the New England States.

#### When should ashes be sown on wheat?

Such is the question of a correspondent and he also asks if leached or unleached ashes are the best. The effect of ashes is to enable the plant to procure more food from the soil, and especially matter that will aid to build up a strong straw. With a strong straw, it is evident there are strong roots, and consequently more leaves, and a better matured grain. The leached ashes do not contain the same amount of the alkali that gives the manure its decomposing power; hence, whilst they act on the vegetation, their action is only partial, when compared with unleached ashes. The right time to sow either, but especially unleached, is shortly after vegetation has started in the spring, or soon after frost is out of the ground,



## The Garden & Orchard.

### Dwarf Pears.

#### CAUSES OF FAILURE—ELEMENTS OF SUCCESS.

The more recent controversy on this subject was opened by an article from the pen of Mr. Allen, of Black Rock, who detailed his experience in the planting, management, renewing, and final destruction of an orchard of dwarfs, upon Grand Island, in Niagara river; ending with the conclusion that "dwarfs are a humbug," and averring that the chief crop they produce is what is pocketed by nurserymen. Mr. A. also stated that similar results had followed nearly every trial of this kind about Buffalo; and that the unfortunate experimenters all joined in his conclusions, excepting one or two, who, from "natural obstinacy," still refuse to concede the point.

This article, written with a vigor and raciness peculiar to the author, attracted much attention, and drew out a host of opponents; among whom it has been asserted that the unfortunate orchard in question was, in the first place, composed of "cullings," which Mr. A. had purchased at a bargain; and that they were planted in level, clayey, undrained meadow land: and one respondent, who claims to have visited the orchard expressly to make discoveries, speaks of seeing patches of sedge, or marsh grass growing about.

Mr. A. states that, finally, the remaining trees were girdled by mice, and thus the experiment came to a close. This conclusion of the matter is a very suspicious circumstance, and seems to give, at least, a color of plausibility to the various charges of mismanagement, as the destruction of trees by mice, on well tilled ground, is, to say the least, a very rare occurrence.

Among the combatants who have appeared in this controversy, is one who claimed to be the person singled out as "naturally obstinate," and who asserts that he obtained from Mr. A. a portion of the "cullings" from which the orchard in question was planted, which were set out and carefully nursed, but in vain: and he was finally obliged to discard them, and supply their places with others, which have now grown to be fine, large and fruitful trees.

Leaving the merits of this case of Mr. A.'s out of the question, the contest has been the means of drawing out a large amount of really valuable information upon the general subject of dwarf pear culture, from the most reliable sources. Indeed, it is only during the last four or five years, that the general public have become possessed of any reliable information upon the subject.

The fact that it is necessary to set dwarfs with the point of union with the quince quite below the surface of the ground, is believed to have been first started by Col. Wilder, in his reply to Mr. Stoms, spoken of in a previous article; and, doubtless, a large proportion of the unfavorable experience of planters, may be the result of a failure to do this, as with the former practice of planting all varieties, indiscriminately, upon the quince, they would be unable to root from the pear, as the quince failed to supply the necessary pabulum. Having learned so much, however, this need be no longer a difficulty.

By some growers, the multitudinous fibrous roots of the quince are believed to be, at least to some extent, annually renewed; and, as their range is comparatively limited, the necessity of constant and copious supplies of manure must be obvious. It will be especially observable that, when quince-rooted pear trees once become stunted, or checked in growth, it is very difficult to renew their health and vigor.

A fruitful source of difficulty, with many, is doubtless a lack of courage to use the knife thoroughly. The purchaser receives his trees—perhaps yearlings—with straight upright shoots of three, or perhaps six feet in height. According to directions, these should be cut back to within a few inches of the ground, after planting; but this looks too much like spoiling them, and accordingly they are left in their natural state. The consequence is, that they throw out a few feeble branches, or spurs, and very possibly make all the growth at or near the top. Thus a head is commenced, at a height too great for even a standard tree; and as it increases in size, the high winds act upon it so effectually, that the slender quince roots are loosened in the soil, and a funnel shaped cavity is formed about the base, in which the rains of autumn and winter accumulate, and the tree is, very possibly, winter-killed, or turned out by the roots, during the high winds of spring; or, should it escape such a catastrophe, it can

hardly fail to sustain a shock sufficient to engender disease, from which, such malformation, it will scarcely be able to recover.

Another fruitful source of failure, is a lack of thoroughness in the preparation of the soil. In no country, perhaps, has the idea been more prevalent that a tree can, and must take care of itself; and few, perhaps, even of those who are really informed on this subject, fully appreciate the degree of thoroughness necessary to compensate for all the additional wants occasioned by the dissimilarity of stocks. It is a dictate of sound policy, as far as possible, to make up for lack of ability to reach laterally, by deepening and enriching, in such a manner as to attract them downwards, as far as they are disposed to travel in that direction; care being had at the same time, that all superabundant moisture is enabled to pass freely away from the subsoil.

We are subject to occasional visitations of great heat, and extreme drouth, from which quince-rooted trees are very liable to suffer, unless by deep tillage the roots are attracted downward, out of the way of its effects. A mulch of coarse manure will doubtless do much to secure the same results, if properly applied and carefully watched. It is, however, liable to serious objections. If applied early, it keeps the soil compact, damp and cold, and is in the way of cultivation, without which the soil cannot be kept mellow, so as to freely admit the aeration of the surface above the roots. It may, perhaps, be applied with advantage later in the season, having first given the soil a thorough stirring where it is to be placed. Even then, however, it will need close watching to prevent harboring mice, which, if a drought intervenes, sometimes commence their depredations as early as August.

Heretofore, mulching has been the hobby of horticulturists generally, and the writer had felt obliged to "take it upon trust," but his experience, and that of some of his neighbors, has been unfavorable, and it is also corroborated by the recent action of the American Pomological Society, who seem to consider it of very doubtful utility.

Another cause of failure, and one perhaps, in some cases, the parent of difficulties charged upon other causes, is the need of protection against the high winds, occasioned, to a great extent, by our peculiar geographical position. Inasmuch as we cannot go to the fountain head, and say to the winds, "Thus far, and no farther;" our next alternative, is to set up barriers, as best we may, and endeavor to temper it to the weakness of our pets. This we may often do by leaving a strip of woodland along the exposed sides of our grounds, but not near enough to shade or otherwise injure the trees, or in the absence of this, to plant a cordon of rapid growing trees, intermingled with evergreens if possible. At the same time, it is well to remember that prevention is better than cure; and if dwarfs are cut back at planting to within eight or ten inches of the ground, and so managed as to secure a well spread base, they will be comparatively safe from injury from this quarter.

The last, but, perhaps, not the least of the causes of failure, in our climate, is the liability to late fall growth, in some seasons, leaving the wood to enter upon the winter with its vessels loaded with moisture, the freezing of which, in this condition, often results in serious, if not fatal injury to the trees. The only way to reach this difficulty is by way of prevention. The ground, if at all retentive, must be underdrained, so that all superabundant moisture may pass off free. The manures should be applied in the fall, so that their effect may be produced as early in the succeeding season as possible, and thus secure the early maturity, and perfect ripening of the wood. Should growths, in any case, be continued, or be renewed after the beginning of August, they should be stopped at once, by pinching, in order to leave time for the hardening of the wood.

T. T. LYON.

Plymouth, Feb. 14th, 1859.

### HORTICULTURAL NOTES.

#### Plums on Peach Stocks.

E. W., a correspondent of the Boston Cultivator, writes that on calling at the nursery of a Mr. Allen of Walpole, he noticed several plum trees near the house, of some twenty years' growth, as well as some of a lesser growth, all of which were free from warty excrescences. On asking for the reason, Mr. Allen informed him that he imputed it altogether to his plum trees being grown on peach bottoms. Plum trees on their own roots in the immediate vicinity were covered with warts.

#### The Hubbard Squash.

The February number of Hovey's Magazine contains a history of the Hubbard Squash in which the writer, Jas. H. Gregory of Marblehead, Mass., confirms all that we published a short time since from the pen of Prof. Holmes of Lansing on the same subject. Mr. Gregory is the gentleman who

first distributed the seeds of this noted squash, which he says was introduced into Marblehead, forty years ago, by a countryman, who brought it to a customer he was then supplying with vegetables, as a present, "assuring her it was not a poisonous gourd, and adding that if she did not find it fit for the table, it could be given to the hogs. The seeds of this squash were given to a widow lady, a great enthusiast in gardening, to whom its cultivation appears to have been confined for upwards of twenty years. About fifteen years ago it was brought to the notice of the writer by a washerwoman named Mrs. Hubbard, after whom he named it, as up to that time it had been without a name."

"One of the best characteristics of the Hubbard squash," says this writer, "is its strong individuality. With whatever variety it may be crossed it will still retain many of its excellent characteristics: and a careful isolated cultivation for three successive years will nearly obliterate all crosses." In addition to this information, the writer relates that off a scant half acre one cultivator raised 5100 pounds and another from an acre 16,136 pounds, or seven tons and a half. This squash would evidently make fine feed for milch stock, as it keeps so well through the winter.]

#### American Fruits in England.

Mr. Rivers, the English Nurseryman writes to C. M. Hovey of Boston, relative to American fruits in England:

"The Melon apple does well here and is delicious; the Mother is also excellent; it ripened here in October, was oval, slightly ribbed, very melting, dark red all over and full of juice. I see it is called in your lists a November apple; mine came from Newburgh; is it right, think you?"

It is strange to find that nearly all your native pears are worthless here. Seckel, Tyson and Moymensing at present are the only kinds really good; the Tyson is a most excellent summer pear, but the following were almost worthless:—Bloodgood, Brandywine, Kentsing, (very sweet and not bad); Bufum, handsome, but dry and poor; Swan's Orange, very large, of a fine yellow, but always sour; Lawrence, bright yellow, but no flavor; Sheldon, very handsome, but worthless; Howell, the same; Oswego Incomparable, ditto, and two or three others not worth gathering. It is strange that so many of your native pears should be here so inferior, while we make the Seckel one of our standards of flavor; it is also remarkable that we should give you one pear universally popular, (the Bartlett) and that in like manner you should have given us one, the Seckel.

Your peaches, except most of the yellow-fleshed, are excellent here. Crawford's Early is, however, very fine; and a late sort, called Poole's late yellow, which I received from Downing some years ago, beat the Salway at one of the meetings of the Horticultural Society's Committee, much to their surprise, for they did not know of any late peach but the Salway. Your plums are as fine or finer here than with you, and your apples in the warm districts are some of them most delicious; but the pears will not come out: why is this? I begin now to think that, of all fruits, pears are the most capricious; at our last show, some of the best known fine kinds have been inferior in flavor; and the old Crassane, generally a fine pear from our walls, was really nasty, yet we never had a finer season."

#### Root Grafting.

The Cincinnati Horticultural Society at its last meeting discussed the subject of root grafting. F. G. Carey, Messrs. Howarth and Addis, denounced the practice in strong terms, whilst some of the members took the other side, and Mr. Heaver offered a resolution recommending root grafting as "one of the best, if not the very best modes of propagating apple trees." But the Society declined to adopt this resolution, and resolved that in its opinion, the practice is neither to be denounced nor recommended, and recommended to all nurserymen "the propriety of grooving a portion of the trees they offer for sale, where the graft is inserted on the entire stock."

#### Japan Lilies.

C. M. Hovey, Esq., in his Horticultural Magazine, thus writes of the Japan Lilies, in the cultivation of which he has had great experience:

"Our experience in their culture for many years has shown that no bulb or plant will bear rougher treatment or more neglect than the Japan lilies. They may be planted in the open ground in October, November, December, January, February, March, or even April, and yet bloom beautifully. No other lily that we have tried will succeed with such treatment. The old white lily is far more difficult to manage and more uncertain to bloom. Two years ago we had three hundred bulbs left out of the ground accidentally, and after lying in a box under the stage of the greenhouse until the frost was gone, in March, were then planted and flowered finely."

Possessing so many valuable qualities they should be found in every garden; but notwithstanding they have been introduced into our collections more than a dozen years, they are yet very little cultivated, and are indeed, generally rare. An impression has gained currency that they are not hardy, but require the protection of the greenhouse in winter, and hence they have not been sought for so eagerly as other less beautiful plants. This, however, is not so. It is true, that when first introduced to Great Britain, they were thought to be tender, and were exclusively grown in the greenhouse, where they form one of the most superb objects of summer decoration, and where they should always find a prominent place. But they are quite hardy, as we have already shown."

"Their cultivation is very simple. They will, like other bulbs, grow in any ordinary soil, but to produce fine specimens, with twenty or more flowers on a single stem, requires a better prepared and more favorable compost. This may be readily done by removing a portion of the garden soil, and replacing the same with peat and sand, mixing the whole well together to the depth of eighteen inches or more. In such a soil they will thrive with vigor, and produce an abundance of flowers."

#### New Seeds and Plants Advertised in England.

Among the advertisements in the various foreign periodicals received at this office, we note the *New Perennial Spinach*, which is considered

by the gardener to Lord Chesham, "one of the most valuable additions to the kitchen garden that has been had for years." The *Pampas Grass*, is now advertised as an ornamental plant of exceeding beauty. Large roots of the *Dioscorea* are now offered at \$10 per 100. The *Ash leaved Kidney* and *Early Lemon Kidney* potatoes are offered at high rates as choice varieties. *Turner's Scarlet Gem Melon* is a new sort, which is certified to as being excellent for flavor, one of the best in cultivation. Seven prizes were awarded it at as many different shows last season. A new exotic fern, the *Nephradium Molle*, is offered at only \$4 a plant. The *Richmond Dwarf Late White Broccoli*, the hardiest in cultivation, and which produces fine heavy heads from the middle of May to the middle of June. Two new *Chrysanthemums* are offered for sale, viz: *C. Tricolor Burdettianum* and *C. Tricolor Venustum*. These are called hardy annuals, offered for the first time, with the prediction that they will become universal favorites. A new *Torenia*, which "quite puts the old variety out of the field," is brought out this season. It is much praised by Dr. Lindley. The *Salway Peach* is a new late variety, considered an acquisition of great worth. The *Callicarpa Purpurea* is a fine winter plant for conservatories and greenhouses, insignificant for its flowers, but beautiful for its innumerable rich purple berries, about the size of swan shot. The *Champion Cabbage* is recommended highly. The new *Exceller Pea* is recommended as the very earliest and best wrinkled marrow pea grown earlier than either the *Napoleon* or *Eugenie*. The *Lapstone Kidney* potato is advertised as producing 600 bushels to the acre free from disease. The *Imperial Kidney* potato is advertised as the "best potato in the world," yield abundant, and size from two inches to nine in length. The *New Zealand Runney Bean* is a variety said to be found by a traveller in central New Zealand. The *Champion of Scotland Pea* is a new sort to be had only of the Lawsons, seedsmen to the Queen; and is called one of the most distinct and best flavored kinds known. The *Dr. Livingstone Cucumber*, a splendid black spine, from twenty-two to twenty-six inches in length, is highly recommended. The *Queen of the West*, and *General Havelock* Melons are new sorts that are now coming into the trade. *Lambs Mammoth Red Celery* is a variety that is stated to be the largest yet known, attaining the extraordinary weight of ten to twelve pounds. In flavor this variety is unsurpassed. The *Roseberry Brussels Sprouts* are regarded as a favorite winter and spring plant for early greens.

#### The Fremontia Californica.

This hardy ornamental plant was originally described in the Smithsonian contributions, and in 1851 a solitary plant was raised in the gardens of the London Horticultural Society, from a seed received from Mr. Robert Wrench. In April 1854 it produced flowers for the first time, says Dr. Lindley, "as large as those of *Trollius Asiaticus*, brilliant yellow inside, apricot colored outside, with the addition of some cinnamon colored down; their substance was so thick, that each flower remained in perfection for some weeks. Since that time it has proved to be a beautiful hardy shrub, with a habit wholly unlike that of every hardy plant in cultivation, most resembling some of the Hibiscuses of Western Australia. The plant still remains at Chiswick Garden, the only one in Europe, as it has as yet resisted every attempt to propagate it."

It will be seen that, Messrs. Fahnestock and Sons at Toledo offer for sale a large amount of trees and stocks, and are ready to supply local nurseries. The *Lawton Blackberry* is offered for sale by Mr. C. Betts of St. Joseph county. Attention is also directed to the advertisements of the Syracuse nurseries, and also to Ellwanger and Barry's Rochester nurseries at this season. The fruit interest is of a growing importance in this state, and can not be neglected.

#### Evergreens—Time to Transplant.

A correspondent writes that he is about to procure during the season of early summer a number of young evergreens from the Lake Superior country, and would like to know what is the best time to set them out, or whether they can be set out so that they will be sure to do well. The evergreen order of trees have a period of rest as well as the deciduous, and it is during this season of rest that the transplanting should be done. The season of rest for the evergreens extends rather farther into the spring, than the same season for other trees, and hence many have an idea that evergreens may be transplanted in summer just as well as at any other time; but this idea is incorrect. Again a great many trees of this kind are brought down from Lake Superior, with the idea that they will thrive if set out. Of some thousands that are annually sent down, sometimes in tubs, sometimes with balls of earth around them, we seldom hear of any living beyond a year or two. There are exceptions, as a matter of course, but they are rare. To have a good plantation of evergreens, we must have recourse to the nursery, where trees can be had with roots fitted for transplanting, and of size sufficient to form an ornament worthy of any residence in a few years, with little risk of having to do the work over again every two or three years, with all disappointments usual in such cases. For instance, we would rather have fifteen or twenty, Norway Spruce from the nursery of Messrs. Hubbard and Davis, to set out the present spring, at any reasonable price, than have a hundred three or four feet pines and hemlocks from Lake Superior as a gift. At the end of five years, the Norway Spruces if set out with care would be magnificent living ornaments, blessing the eye with their beauty winter and summer, standing from fifteen or twenty feet in height, whilst at the end of the same time the pines would probably be minus in number two-thirds or one half, and their size in comparison would be much like that of Gulliver compared to Broddignag. Artificial successful plantations of evergreens, require to be made from trees artificially prepared for the purpose by cultivation, nurture, and exposure.

#### Orchards and Crops on them.

"What shall I do with my orchard?" said a friend the other day, "I planted it with corn last year, and I would like to plant it with the same crop again. The soil is light, being a loamy sand, not rich, but well manured, last year, and will be well manured this year. Shall I again plant it with corn?" Not if you have any regard for the growth of the trees. Two crops of corn in succession, even with manure, will make the orchard a corn field, and unfit to grow young trees. The very shade that the grown corn makes, if grown as corn should grow—quick, strong, and rampant—as well as the great power of its roots to absorb all matter from the soil fitted for its own increase, renders corn a bad crop to put in an orchard, of either old or young trees. If the orchard must grow a crop, let it be a crop of roots of some kind. Potatoes, with a sufficient proximity to market, ought to pay the best on such a soil as that of this orchard. The land being all ready fit for early plowing, would require no more work to fit it for potatoes than for corn. The hoeing and after culture would be about the same, and the yield of the corn, after leaving out the spaces occupied by the trees, would not average over thirty bushels per acre. We believe there are five acres in the orchard. On the contrary let us look at the cost and estimated income of the five acres of potatoes:

|  |          |
|--|----------|
| 1st. There is the labor incident to planting:  |          |
| Plowing eight inches deep five acres at \$1.25 per acre  | \$6 25   |
| Cultivating once, for the potato likes a mellow, well worked bed   | 2 50     |
| Plowing the drills for marking   | 2 50     |
| 50 bushels of potatoes for seed, at 75 cents   | 37 50    |
| Cutting the same, preparatory to planting  | 8 00     |
| Planting the same, being the work of two men and two boys for one day  | 3 00     |
| Top dressing each hill with plaster and ashes  | 2 00     |
| Whole expense of planting  | \$56 75  |
| 2d. Labor incident to cultivation:   |          |
| Passing through the rows as soon as they can be distinguished, with the cultivator   | 3 00     |
| Passing through with the plow so as to throw the earth from the hill on each side, when the plants are about six inches high   | 5 00     |
| Passing through again, with the plow, throwing the earth toward the hill, in two weeks after   | 5 00     |
| Passing through the five acres with the hoe, weeding and hoeing when necessary   | 2 00     |
| Total labor incident to cultivation  | \$15 00  |
| 3d. Labor incident to harvesting:  |          |
| Digging, gathering, and putting in the ground or in cellars usually paid for by the bushel, and not by the acre, but we may call it per acre \$8, 40 00  |          |
| Total cost of seed and labor for 5 acres potatoes, \$111 75  |          |
| 4th. Potatoes thus treated on well manured land, should yield at the rate of 150 bushels per acre, as a minimum crop, large and small, and which may be estimated as worth, net, after paying the expense of marketing, 30 cents per bushel, for the whole five acres the yield would be | \$225 00 |

Now let us look at the cost of the corn crop, and its estimated yield, taking the minimum rate of produce as our guide.

1. The labor incident to planting would be nearly the same, with the exception of the seed.

2. The labor incident to cultivation would be nearly the same.

3. The labor incident to harvesting, including husking and cribbing, would be less than one half per acre the crop of potatoes would cost.

The cost of the corn crop may be, therefore, estimated as follows:

|   |          |
|---|----------|
| 1. Planting and the work connected therewith, allowing \$2.00 for seed  | \$21 75  |
| 2. Cultivation of crop  | 15 00    |
| 3. Labor of harvesting, at the rate of \$3.50 per acre  | 17 50    |
| Total cost of corn crop, nearly \$11 per acre   | \$54 25  |
| The estimated crop is put at the rate of 50 bushels of ears, or 40 bushels of corn per acre; the average is less, but the average cultivation is not so good as specified; estimating the corn at the average rate of 50 cents per bushel, the produce of the crop would be | \$100 00 |
| 50 bushels of corn yields something more than the mere grain crop; there comes off each acre a ton or more of fodder, which for feed and manure may be valued at \$6 per acre   | 30 00    |

The total crop of corn, therefore, when estimated moderately, should yield in the whole, in money value

At a cost of

Leaving a net profit for use of land of

In putting the crop of potatoes at 150 bushels, it may be that crop is underrated, but so is the corn, and it must also be recollected that it has been estimated that the potato tops yield from one to two tons of manure per acre, where they are grown thoroughly. We would also note that in such an orchard, and on such land, we should recommend that it have a dressing of lime, to the amount of at least ten bushels to the acre. With the manure, that is proposed to be put on it, the crop of potatoes would thus be increased in size and quality, and quantity, fully enough to pay for the cost the first year, and the trees of the orchard would also be rendered much more healthy.

The *Spiraea* for the garden.

To those who are preparing to add to their collection of hardy ornamental plants, the *Spiraea* offer themselves as a class which should not be done without. There are the *Spiraea prunifolia*, *Spiraea Reevii*, and *Spiraea callosa*, all sorts having particular characters, rendering them worthy of cultivation. To these has been added now the *Spiraea grandiflora*, which has been proved perfectly hardy, and producing large white flowers of great beauty. This variety grows from four to five feet in height, and its flowers from two to six on a raceme, and are white or cream colored. There are now propagated by the florists, several other varieties, but they are not well established as known hardy sorts, which may be relied upon for ability to pass through severe winters with or without protection.



## FOREIGN AGRICULTURE.

## Pliny's Tuscan Villa.

BY WILSON FLAGG.

One of the best descriptions extant of a Roman garden is contained in a letter of Pliny the younger, in which he describes his Tuscan Villa. The following account is abridged from his letter. The house was built at the foot of a hill, but open to a prospect of the country below it. The ascent was so gradual that the visitor, amused with the scenes by the way, arrived to the top before he began to perceive his upward progress. Behind it lay the Appennine mountains, from which, in the serene weather, proceeded a cool, refreshing breeze, never too violent or cold, but moderated by the distance of its journey.

The greater part of the house faced the south and was warmed by the sun all the afternoon, having the most of this advantage in the winter. In its front was a portico of considerable size, but proportioned to the house and containing several apartments, the court being laid out after the manner of the ancients. In front of this porch was a terrace ornamented with several figures, and bordered with box. Below this we descended into a gravel walk, and as we passed along our eyes were greeted by the figures of different animals carved in box. An acanthus stood upon a level piece of ground, of a soft and almost liquid texture. A walk surrounded the acanthus, bordered by an evergreen hedge, which was also cut into a variety of shapes. Opposite this was a sort of a circus, for taking the air on horseback, passing round the box hedge, variously carved, and a row of trees that were kept down by the shears. The whole was surrounded by a wall, completely covered with box, so that no part of it was exposed. Outside of it was a beautiful green lawn, unsurpassed by anything yet seen. Still farther, the prospect terminated in green meadows and groups of wood and shrubbery. At the extreme end of the portico was a large dining room, from the doors of which you could see the end of the terrace, and from the windows you could obtain a prospect of fields and a wide range of country.

Nearly opposite the centre of the portico stood a summer house, surrounding a small court and shaded by four plane trees. In the midst was a marble fountain sending its gentle spray upon the roots of the trees and upon the grass round about them. In the summer-house was a bed chamber, from which all light and sounds were excluded, and near it a room for supper or social meeting of a few friends. This court was overlooked by another portico, enjoying a prospect like that from the last. Another bed chamber was shaded by an adjoining plane tree. Here it may be remarked that the oriental plane was a favorite shade-tree among the Romans, and there was hardly a villa that was not adorned by several of these trees. The outside of the last mentioned bed chamber was adorned with carved work in marble; above was a painting of trees with birds perched among the branches; below was a small fountain, from which the water flowed through several pipes into a basin, making a very pleasant sound of rippling.

In one corner of the portico was a large bed chamber opposite the dining-room, with windows overlooking both the terrace and the meadows, and in front of it a sheet of water, delighting both the ear and the eye as it fell from a considerable height into a marble cistern, breaking into foam. Adjoining the chamber was a stove which supplied the heat of the sun in chill and cloudy weather; thence you passed through a dressing-room into a cold bath room, provided with a convenient bathing cistern. If this were not large enough for your accommodation, there was in the outer court a warm bathing-room with a basin adjoining a well which supplied cold water, to temper the warm water of the bath. There was still another bath of a moderate temperature adjoining the cold bath-room, but more exposed to the sun. Above the dressing room was a tennis-court, adapted to several kinds of exercise and amusement, by containing within it several circles.

At a short distance from the bath was a staircase leading into a close gallery, at the entrance of which were three apartments; one, overlooking the little court containing the four plane trees; a second overlooking the meadow, and the third gave you a view of several vineyards. Thus each had a different view and a particular aspect, looking to three different points of the heavens. A bed chamber was constructed out of the upper end of the gallery, and gave one a view of

the race-course, of the vineyards and of the distant mountains. Another chamber joined this, which could be opened to the sun in winter. These, with one other apartment, constituted the front.

In the southern part of the house was a covered gallery, raised considerably above the ground, affording a prospect of the vineyards, and so situated as to make them appear in close vicinity to the place. In the centre was a large dining-room, exposed to the healthful breezes from the Appennine mountains; in the rear, from the windows, we had a view of the vineyards, through the gallery. The gallery was terminated by a bed chamber, affording a diversified prospect. Beneath this was another gallery that resembled a subterranean passage, perfectly cool in summer in consequence of the exclusion of the outer air. The dining-room conducted at one end into an open portico, which was shaded in the forenoon, and was exposed to the sun the rest of the day. Several other apartments were contiguous to this.

Such was the arrangement of the different parts of the house that all was delightful, though greatly surpassed by the beauty of the circus, or horse course, which was an open area presenting its whole expanse at once to the eyes of the visitor. This was surrounded by plane trees covered with ivy, so as to exhibit their own beautiful heads of foliage above, and the borrowed verdure of the ivy below. This ran luxuriantly over the trunks and lower branches, and joined them by its network of vine. The space between the trees on the ground was filled with box, and the whole was fenced by a hedge of laurel so high as to afford an excellent shade. This straight boundary changed its figure, at the end of the horse course, into a semi-circle, set round and shaded by cypress trees, and making a gloomier shade than the laurels. Among the numerous circles the innermost enjoyed the greatest amount of daylight, and these were filled with roses, making both the sun and the shade more cheerful and delightful.

At the end of all these circuitous paths you arrived at a straight walk, which divided into several others, exhibiting in some places green grass plats, in others box trees variously carved into sculptured figures, some of which formed the name of the proprietor, and others that of his gardener. Vegetable pyramids were intermixed with these figures, alternating with apple trees, and occasionally, in the midst of a profusely dressed plat of ground, occurred a tract entirely wild, in a complete state of nature. The middle of the area was shaded on each side by dwarf plane trees, beyond which was an acanthus gracefully waving and bending under the hand; then followed other pieces of vegetable sculpture, and various names.

At the opposite end a couch made of white marble was surmounted with a vine supported by four pillars of Caryatian marble, forming a pleasant arbor. Several pipes issuing from this couch sent out streams of water, as if they were forced out by the weight of the persons reclining upon it. The water fell first into a stone cistern, thence into a marble basin, which, by subterranean sources, was kept always full, but without overflowing.

One of the most remarkable of the conceits of this extraordinary place was the one next mentioned. When the proprietor supped here the substantial dishes were placed upon the border of the basin, while the secondary articles were made to float about in the water in dishes resembling little birds and boats. Opposite the marble couch was a bed chamber, equalling it in beauty and ornament. This room was decorated with marble, and the projecting doors were entwined with green plants. The windows above and below were trellised in the same manner. Here was a bed, admitting the light darkly through a luxuriant vine that covered the whole building up to the very top. Here you might recline as in a natural grove, while you were secured from the rain. A fountain bubbled up in this place and immediately disappeared. In various parts of the walks were marble seats, dispersed in convenient situations, for the accommodation of those who were weary with walking.

Near all these seats were also little fountains, and in every part of the horse course the murmur of the water, conveyed through the various pipes, were heard with many degrees of loudness and murmuring. These streams were not wasted, but were made to irrigate the plants in different parts of the ground.

The reader will perceive that every part of this garden, except the little tracts of wild pasture which were introduced for the sake of contrast, was in the highest style of art. All its objects were excessively ornate and expensive. Pliny's country seat was proba-

bly in the style of hundreds of others, which have never been described, belonging to the conquerors of that age, who decked their gardens and estates with the spoils of other nations, and who were ambitious to exhibit the trophies of their adventures in combination with the beauties of nature. Pliny, however, was not a warrior, but an advocate before the courts of Rome, and a cultivator of letters. This voluptuous garden seems never to have inspired him with the conception of any great work. He is known only as the author of familiar epistles and a fulsome panegyric on the Emperor Trajan.—*Magazine of Horticulture*.

## HOME NOTES.

## A Statement of what a Small Farm will Produce.

MR. EDITOR.—I own a small farm of 85 acres, one-third lying in the corporation of the City of Monroe and the other two-thirds in the township of Monroe adjoining the city. Seventy acres of said farm are cleared and under a fair state of cultivation; and three of the seventy acres are planted in a Nursery of about 60,000 grafted fruit trees. Fifteen acres of said farm is covered with good thriving timber; the whole farm is fenced. Sixty-seven acres I am and have been cultivating and using for all crops which I think will pay best. For the past several years I have nothing to sell, as I was employed in other business which absorbed most of my time, and did not devote the attention to the farm I ought: hence it was out of repair. Moreover the land was wet and needed ditching.

About a year and a half ago I turned my attention more exclusively to farming: I cut three ditches through the farm, and two temporary ditches through my neighbor's farm below me at my own expense; for which I was better paid than for anything else I had done on the farm for sometime; for now I have something to sell. I never kept any account of what I raised until the year 1858. I will give a statement of the produce and its value at the time I had it ready for market.

I sowed only three acres to winter wheat, of the Mediterranean kind. I had clover and a little timothy on the field before I plowed it for the wheat. I pastured it in the spring of 1857, broke it up before harvest eight or ten inches deep, rolled it, put on a light coat of manure, then dragged it and stirred it soon after harvest, and rolled and dragged it again, and about the first of September sowed it to wheat, cultivated it in middling deep with a common corn cultivator, then drew drains through all the lowest places with the plow and ditching plow, leading to the outlets or main ditches, but did not open the dead furrows, except on the east side of the drains with the shovel, then rolled it again and after the first heavy rain I helped all places with the shovel where the drains were not deep enough; and in half a day after the heaviest rains the water would all be gone, a circumstance hardly anticipated by many well acquainted with the nature of the soil. Last spring I rolled the wheat again. Judging from the wheat standing before harvest, my neighbors thought and said it would yield fifty bushels and over to the acre, but it was much down, and yielded only eighty and a half bushels of good plump wheat from the whole field which was then worth \$1.00 per bushel (it is worth now much more.) Total value of the wheat at the price when ready for market \$80.50.

I put in all my spring crops in a similar way, according to the condition of the ground, and when the land is ready to be seeded down to grass, the water will pass away leaving only what is needed for the crop till it is plowed again, and will not scald the grain or grass in summer nor heave them out in the winter, thus giving a full crop and bringing on the wheat early and more out of the danger of weevil. I never burn any straw stack or anything else that will make manure, or waste any of my leached ashes. I also buy a lot of tobacco, groceries, &c., before the more busy season comes on, so that I need not go to town for a plug of tobacco, &c., every other day: and if I do have to go to town any time, I do not stay all day and have my horse or horses tied to a post before the groceries as many of our Monroe county farmers do, (and some other county farmers too,) but go directly home to work when work ought to be done.

My farm is principally clay, mixed with sand. I think its quality medium with the disability of being wet in some parts. But my experience tells me that it can be made to yield good crops. If you do not feed and curry a horse well, he will be boggy; or if you do not do justice to a cow she will not yield profit on milk and will have the hollow

horn. So it is with your farm if not well cultivated, you will be in the predicament the man was who had nothing to sell so aptly described by you, Mr. Editor, a short time since.

For my part, I am satisfied that deep plowing, and early and deep sowing, and thorough top draining, in Monroe county at least, are the best for wheat and almost every thing else you raise on a farm.

My crops and their value for 1858, were as follows:

|  |          |
|--|----------|
| 804 bushels wheat at \$1.00 per bushel, ..                     | \$80.50  |
| 11 " rye at 65   | 6.88     |
| 48 " spring wheat (not plump, and weevil took one half         | 86.00    |
| 34 " oats at 25 6d per bush. ....                              | 14.44    |
| 705 " corn in the ear, at 2s (besides use for horses) ..       | 191.50   |
| 18 " sweet potatoes at \$1.30 per bush 23.40                   |          |
| 14 " beans at \$1.00 per bush. ....                            | 1.50     |
| 114 " potatoes, at 4s per bush. ....                           | 57.00    |
| 65 tons hay (sold some out of field at \$4.50 worth \$6.00) .. | 292.00   |
| 87 gallons Chinese sugar cane syrup at 4s                      | 43.50    |
| 14 bushels timothy seed at \$1.75 per bu. ....                 | 2.63     |
| 184 " clover seed at \$4.25 per bu. ....                       | 55.28    |
| 1 acre broom corn and seed ..                                  | 2.00     |
| Lot of pumpkins, ..  | 6.00     |
| 9 loads corn fodder, tops & blades at \$1.50                   | 13.50    |
| Corn stalks, ..  | 2.50     |
| Total on farm, ..  | \$829.13 |

| FROM GARDEN.  |        |
|---|--------|
| Tomatoes sold and put up, ..                            | \$6.50 |
| 6 bushels blood beets, at 4s ..                         | 8.00   |
| 225 quarts strawberries at 10c (used also in family) .. | 22.50  |
| 2 barrels cucumber pickles at \$3.00 ..                 | 6.00   |
| cabbage, ..   | 1.00   |
| peas, beans and radishes, ..                            | 1.50   |
| Total sold from garden, ..                              | 41.00  |

Total from farm and garden, .. \$860.63

You see that the above is not over-valued.

I have not kept an account of the cost and labor for this year. I have also pastured six cows for others and also eight head of my own cattle, and five horses and three colts. I have said nothing of the milk sold, or butter, eggs, chickens, nor increase of cattle and horses, &c., the aggregate of which was considerable, besides the articles used in the family.

I am now testing my Chinese sugar cane seed, by growing a little in the house. I test nearly all my seeds before I sow or plant, and as soon as I know the result of my cane seed I will make a statement of my experience in making the syrup, should the practicality of this article compensate for what may be wanting in rhetoric and classical learning, so that you should deem it fit for insertion in your valuable sheet.

Yours truly, MICHAEL FISHBURN.  
Monroe, Feb. 19, 1859.

## A Horse of the right stamp.

We find in the *New York Spirit* the following description of the right kind of stock-getter, and which is at the Rawcliffe Breeding establishment in England. The other comments in the letter are instructive:

"Mr. Editor.—Your correspondent 'North Countryman,' in his instructive and interesting letter, observes, 'Blood, if combined with power and action is the thing, but it is now almost impossible to obtain; and as men can't be jockey weights on the average, it is worth the trial if private individuals, or a company, would keep one or more stallions as high bred as possible, but whose chief recommendation should be to have power and action to carry 15st. across the country as safely as on the road. Why at Rawcliffe should not the attempt be made?' 'North Countryman' must have forgotten that at Rawcliffe they have a horse in Augur that for muscular power and general symmetry of frame is perhaps unequalled. Standing barely 15 hands 3 inches, he measures 6 feet 3 inches in girth, three inches more from the withers to the elbow than from the elbow to the ground, with the thickest and biggest back ever seen. As a race horse he exhibited a very high form, never having suffered defeat at two years old, and had he not met with an accident prior to the Derby, which interfered with his preparation, he in all probability would have been enrolled as a winner of that great race. The injudicious application of 'Major's Remedy' ruined him for ever as a race-horse, and in season 1855 he was sent into Lincolnshire to serve farmers' mares. From the sample we have around Boston I am sure every man who uses Augur must be benefited. I have no interest in Augur, but who that has once seen the grand dark chestnuts, small to the eye, thick as hay-stacks, and measuring 16 hands, with the power of wagon horses, can forget such a sire. 'North Countryman' observes, 'The old far-famed Orville blood, which for years shone in the front with Emilius, Muley, Muley Moloch, and others, is well nigh worn out.—Theon, Dulcimer, The Little Known, and Drayton alone remain,' but I beg to inform him that Pompey, sire of the unequalled Nancy, is still living, and as sound and as fresh as when he first went into training. As a racehorse Pompey showed those good lasting 'come again' qualities that so frequently enabled him to win when running over a distance of ground, and I never heard of 'roaring' or softness being attribu-

ted to any of his get. In Pompey, breeders will find the valuable Heron blood. Heron was got by Bustard, dam by Orville. Pompey was got by the best son of Orville, dam by Bustard, granddam by the sire of Orville.—P. S. Boston, Eng.

## The Chufa.

A correspondent of the *California Cultivator* writes that he has been cultivating the Chufa or earth almond for three years, and each year it has doubled its produce on the poorest kind of land. The writer asserts that from an acre of chufa grown on land that will not grow either corn or peas equal to an average crop, more pork can be made than from two acres of good corn land. The chufa is first planted in drills and kept clean with the cultivator; after the first year the hogs are turned in and do the harvesting and enough remains in the ground to grow the next year's crop. Poultry are as fond of the chufa as hogs, and follow the swine very closely over their feeding ground.

## How to measure corn in the ear.

Find the cubic inches in the bin, divide by 2815, the cubic inches in a heaped bushel, and take two-thirds of the quotient for the number of bushels of shelled corn. This is founded upon the rule giving three heaping half bushels of ears to make a bushel of grain.

## The St. Clair Co. Agri. Society.

A meeting of the St. Clair Agricultural Society was held at St. Clair city, on the 9th inst. After providing for a revision of the by-laws and premium list, the meeting was adjourned until the 4th of May next, when it is expected the arrangements for the year will be perfected.

## Chester Swine.

My observations and experiments with a pair of Chester pigs procured last spring, have satisfied me that their already great and rapidly increasing popularity is well deserved.

The Chester hog is the result of continued careful breeding, and judicious crossing in Chester County, Pa., for the last thirty-five or forty years. It is said that the first impulse to this improvement, was the importation of a pair of handsome hogs from China, some forty years since, by a sea-captain then residing in that vicinity. More lately, however, many breeders have been laboring to bring the Chester hog up to an acknowledged standard of excellence, to define its points, and make it as distinctive in character, and as easily recognized as a Berkshire or Suffolk. The genuine Chester is of a pure white, long body, and square built with small, fine bone, and has short legs.

It is asserted by the closest observers among those who have tested the Chester hog, that it will produce a greater weight of pork for the amount of food consumed, than any other breed with which they have been compared. An important characteristic of the breed is, that it will readily fatten at any age. Many hogs it is well known, will not fatten well, till they have nearly or quite reached their full growth.—J. B. Knowlton, in *Maine Farmer*.

## Liebig on the use of the Sewage of Cities.

Professor Liebig recently wrote a letter to a friend in England which contains the following extract on an important subject, and which was sent to the *London Times* in which it was published:

"MUNICH JAN. 9.  
"Pray accept my best thanks for your continued interest in my lectures on theoretical and practical agriculture; they are being translated by Dr. Blyth, of Cork, who has by this time nearly completed them. Since last week I have been lecturing on sewage; and I am firmly of opinion that if England wishes to remain an agricultural country she must use as manure the nightsoil and similar residues produced in large cities. This necessity would be increased in the event of a war with America, when the supplies of guano would cease. The price of corn depends upon that of guano, and it is most unnatural that, in a country like England, the production of corn and meat should be so dependent on the supplies of foreign manure. The heads of even the most distinguished agriculturists have been turned by a theory propounded by Mr. Lawes, viz., that nitrogen or ammonia are the most necessary ingredients in manure, and that consequently solid excrements are valueless, the urine alone being of use. These views expose utter ignorance, and prove that in England leading agriculturists do not pay sufficient attention to the fundamental principles of chemistry. It is difficult, nay, perhaps impossible, at this moment to convince them of their error. I have tried to do so in my *Lectures on Chemistry* I have just published, and I shall feel most grateful to you, as well as to all who, like yourself, take an interest in the welfare of their country, for any assistance that may be rendered me in propagating this great truth.—Justus von Liebig.

Every dealer in agricultural implements, every nurseryman, and all who have inventions and labor-saving machines for the farmer, should advertise and let the farmer know, through some agricultural paper, where they can be found.



## NEW ADVERTISEMENTS.

A. FARNESTOCK & SONS, Toledo, Lawton Blackberries.  
JOHN DAINES, Birmingham, Drain Tile Machine.  
H. D. EMMY & Co., Chicago, Seeds and Implements.  
CHAS. BETTS, But Oak, Lawton Blackberries.  
A. O. MOORE, New York, Downing's Landscape Gardening.  
do do Elliott's Fruit Book.  
do do American Weeds.  
M. T. GARDNER & Co., Detroit, Garden Seeds.  
do do Flower Seeds.  
do do Hungarian and other Grass Seeds.

## ANSWERS TO CORRESPONDENTS.

Aunt Percy—Ought to know that we must be sure of the writer before inserting any communication whatever.  
J. C. H.—Yours just received, correction will be made in next number.  
J. L. S. Manchester.—Wrote you concerning your sheep last week.  
R. R. Clinton.—Your communication received, and is filed for publication.  
J. R. W.—Have the subject in hand, and have written you.

## MICHIGAN FARMER.

R. F. JOHNSTONE, EDITOR.

SATURDAY, FEBRUARY 26, 1859.

## Agricultural Statistics.

We have recently received from the American Geographical and Statistical Society, a copy of an address delivered before its members, by John Jay, Esq., being "A Statistical View of American Agriculture, its home resources and foreign markets, with suggestions for the schedules of the Federal census of 1860."

The author proceeds to define first the necessity of statistics to government. In fact, no government, whether despotic or representative, can ever legislate either for war or for peace, with permanent success, without the resources which furnish its wealth are thoroughly understood. Hence the necessity for a census, which in its broad meaning includes not only the mere enumeration of the land, its subdivisions and its inhabitants, but also the source of their wealth and the results of their productive industry. Here, where the governing power is in the hands of the people, where by States, by counties, by townships and school districts, the people of each locality are in the habit of taxing themselves, for the purposes of government, the knowledge of the resources of the whole country, of the State, the county or the township as disclosed by an accurate census, is as instructive and necessary to each citizen as to the most eminent statesman, who may be placed at the head of affairs. Hence every effort should be made to have the decennial statement as perfect as possible. Every citizen is interested in it.

No portion of the returns are more important to have exact than those which relate to agriculture. The number of the population, the value of the lands, of the improvements upon them, the amount of capital employed, the area devoted to the several crops, the annual production, the number and increase of animals, and of the manufactured articles, all declare in unmistakable terms whether we are advancing or receding. For our own part, we believe that in some kinds of culture we are receding instead of advancing. Take wheat, and we find that in most of the States where it has been grown, there has been, as a general rule, a decrease in the average amount of the yield per acre. In our own State, we doubt if an average of ten bushels have been raised from every acre sown for the past four or five years; and in this address of Mr. Jay, it is stated that the average number of bushels per acre in some States is as low as five and seven bushels, and the highest is only sixteen. And yet it can be shown that a higher average is grown in other countries which are not as well adapted to the growth of this grain as ours. Again: it is claimed that there is an alarming decrease in the agricultural population, when compared with the land under cultivation, and the whole population. This vacuum, however, may be accounted for as supplied in part by the use of improved implements. The horse powers, the thrashing machines, the horse rakes, the mowers, and the reaping machines, the cultivators, have more than added one fourth to the ability of those now employed in agriculture to perform the requisite labor, and have, as a matter of course, left an equal proportion of the people to enter into trade and manufactures, or professional life, without having agriculture suffer more in proportion, than what it has always done, for want of skilled labor.

In this address, it is proposed that additional schedules shall be prepared for the census of 1860, which shall afford information:

1st. As to the proportion of the population employed in farming pursuits, both with re-

gard to their sex, and their average life when compared with that of those who live in cities.

2d. The proportion of capital invested in land, stock and implements.

3d. The improved and unimproved lands of farms, and the amount in meadow, pasture or tillage.

4th. The average of each crop per acre and their cost, with the number of bushels or weight per acre of the crop produced, with its cost value.

5th. The amount, variety and cost of manures applied during the year.

These suggestions are very good so far as they go, and with the inquiries that will reasonably be added by the intelligence of those who prepare the schedules for the census, the returns ought to show a very near approximation to the true state of the agriculture of the whole country, and will do so if the duties of the district marshals are performed with judgment and some degree of knowledge of the business which they have on hand. There is certainly evident, a disposition to have the census of 1860 as perfect as may be, but we also want to see it disencumbered of all useless appendices, and placed before the people at an early day.

## Worthy to be Read, and Studied.

We want our farming readers to give the communication, entitled "A statement of what a small farm will produce," a most attentive perusal, and also to ponder upon what is there said. There are points in the remarks of Mr. Fishburn, that will commend themselves to the attention of every thinking man, who has a small piece of land, of which he wants to make the most; and we hope that there are other farmers throughout the State who will follow his example, and give us, from time to time, the results of their experience. Statements such as these are of the highest value; they are the answers to problems in actual cultivation, wrought out not by theory but by practice, and demonstrated on the blackboard of the soil. They serve, also, to confirm the teachings of those who theorize correctly. Let the farmers themselves give us more of them.

Another communication from a practical farmer, on the kind of cattle most needed for this State, is very singularly suggestive to those who are breeding. This, too, we commend for the real utilitarian view it takes of the subject of breeding, and we hope to hear often from the same pen on the same subject, as well as from others. The subject is one that is deeply interesting.

## Farmer's Club at Northville.

The farmers in the vicinity of Northville have organized a farmer's club, which meets at stated times, and the members discuss with each other such subjects as they select. At a late meeting, the subject thus treated was "Wheat growing," and the Secretary, J. D. Yerkes, has furnished us with a succinct report of what was said by the members. We shall publish this report next week; it contains the opinions of the best and most intelligent practical men, on a subject in which they are deeply interested as a part of their business, and will prove most interesting to our readers throughout the State. At the next meeting of this club, the question to be discussed will be, "What is the most profitable stock for farmers to keep?" We hope to be allowed the pleasure of laying the discussion on this subject before our readers. These reports we consider of the highest use; they enable others at a distance from the meeting to participate in the benefits of the club, and whilst the debate calls out information from the members themselves, the reports will also elicit much experience from others who can not be present. For ourselves, we deem them very important, for whilst they inform us of the views of practical men on such subjects, and of how much is known by them, they also enlighten us as to what is not known, and post us up as to how the subjects should be treated in our columns to be of the most benefit. We shall cheerfully extract, or publish the whole of such whenever they are furnished to us, as our limits may permit.

## The first Fruits.

The Grand Rapids Eagle states that during the past week 142 tons of Plaster were shipped for Detroit from that place over the Detroit and Milwaukee Railway. This is but the beginning of an immense demand that is as yet only in its infancy, and which serves as an indication of what the business will be when the liberal terms of freight adopted and devised by Messrs Rice and Muir, are more generally known.

The iron mines of Lake Superior are entering on the business of the year with renewed activity, and are making large contracts for the delivery of iron ore.

## New Books.

A WOMAN'S THOUGHTS ABOUT WOMEN; by Miss Muloch, author of John Halifax, Gentleman, Agatha's Husband, Olive, &c. published by Follett, Foster & Co., Columbus, Ohio, and for sale by Francis Raymond, Detroit.

Those who have read Miss Muloch's works, know what a practical, good sense thinker and writer she is, and will be glad to get hold of a work like this fresh from her pen. It is a book full of thoughts of the very kind which women want, and of the nature to be of great use in assisting them to solve the great problem of the present age, "What shall women do with themselves?" Anything that can throw light on that dark and troubled subject, or in any manner assist woman in working her way to a condition of more honorable and humane self-dependence or independence, than she now occupies, should be welcomed with gratitude. We are sure the thoughts and hints in this work will be of much service to many women in making their life path plain, and inspiring them with courage to work their way bravely.

The subjects treated of are in twelve chapters as follows; Something to do, Self-Dependence, Female Professions, Female Handicrafts, Female servants, The Mistress of a family, Female friendships, Gossip, Women of the World, Happy and Unhappy Women, Lost Women, and Growing Old.

## Literary News.

The Michigan Journal of Education, No. 2, was laid on our table last week, and presented such an agreeable and pleasant appearance in comparison with the old form in which it appeared, that we hardly recognized it under the new management, and with the improvements in its typographical department, it represents fully, fairly, and respectfully, the educational interests of the State, and we hope to learn at an early day that those interests appreciate the efforts of its conductors and Editors, and sustain it with liberality. The present number contains articles by the Rev. Geo. Duffield, Prof. Boise of the University, a review of public instruction in Upper Canada, a mathematical miscellany of much interest, and the department specially devoted to information relative to public instruction in our own State. There are also articles by Professor Winchell, the editor. We note that he has given a page to teachers and localities which may need teachers, where each may make known their wants. This is a very useful page, and will be quite beneficial to all who seek situations, and will enable school districts to make selections of such teachers as may suit them.

It will be seen by a reference to our advertising pages that A. O. Moore, has issued a valuable edition of Downing's Landscape Gardening, of Elliott's Western Fruit Book, and Darlington's work on American Weeds, which we hope to notice at length when we have had opportunity to review them.

The editor of the American Publisher's Circular gives notice that he intends to publish a complete list of all booksellers in the United States and Canada, and for that purpose he invites the assistance of booksellers and publishers themselves. They are invited to communicate with him.

The Hon. J. T. Claiborne is now engaged on the life of General Quitman, all the correspondence and papers having been placed in his hands.

Amongst the announcements of new Books forthcoming, we notice that the Messrs. Harper will soon publish a story by Mrs. Oliphant, author of the "Quiet Heart," "Passages from my autobiography" by Lady Morgan. This must be a work of great interest, as Lady Morgan has been known and conversed with every celebrity for the past half century; also Villmar's History of German Literature.

D. D. Appleton announces Ure's Dictionary of Chemistry, Norse Tales, an autobiography of John Brown, Buckles History of civilization, vol. 2, a new work by Dr. Doran; Life and Times of Matthew Henry, and sketches from Jean Paul Richter.

D. M. Dewey, New York, announces a work on open air grape culture, for the use of amateurs in the northern States, with the latest and most approved methods of manufacturing wine.

Sheldon & Co. of New York announce the literary character of men of genius by D'Israeli, a volume of selections from the Cambridge Essays.

The Atlantic Monthly for March.—The number for March of this standard periodical is well filled. We think the first chapter of Mrs. Stowe's story in this number, is the most beautiful and correct picture of life she has ever drawn, and evinces a depth of thought and power of observation of the highest order. Our readers will find on another page one of Whittier's exquisite poetical productions, which will give some idea of the quality of this magazine.

The Detroit Directory for 1859.—The indefatigable compiler of the Detroit Directory after manifold mishaps and delays, has just issued the volume for 1859. This would have been issued for 1858, but the business circumstances of the city for the past year have been such that the encouragement given Mr. Johnston, would not warrant its issue last year. The volume is neatly printed and is bound and published in good form. It contains the names of nearly all the heads of families, and of the principal business and working men of Detroit, a gazetteer of the cities, towns and villages of the State, the statistics of the city, and its civil, religious, military and charitable institutions and societies. The principal firms also advertise in it, and as a reference, with its indexes, we think its benefits are not sufficiently appreciated. Every business man knows that the very first authority referred to by strangers visiting our city, with which they are not familiar, is the Directory.

rectory, if there be one; and strangers are of course guided in their views by the style and address they may find there, especially when advertising information is furnished. Hence a good Directory is of great benefit. The labor of preparing one is not light, and when to this is added insufficient encouragement, and indifferent support, it cannot be expected that such a work will be made all it should be if both are withheld. We hope to learn that the compiler will be amply remunerated for his labor in getting out the present number.

A "Biographical Study on the Life and Works of Daniel Webster," has been published in Russia, by Prof. Katchenovsky, of the University of Kharkoff.

The Duke of Buckingham has nearly ready for press two volumes of his memoirs of the Court of George the Fourth. They are said to be made up of original family papers.

## Foreign News.

The Parliament of Great Britain opened on the 3d instant, with a speech from the Queen in person. Complaints were made by the opposition to the ministry that nothing was said with regard to the position of France, Austria and Piedmont. Lord Derby and D'Israeli replied that they had entire confidence that peace would be maintained. France is pushing forward her warlike preparations with energy. Some of the New York papers seem to hint that all this preparation, while making a show towards Italy, may be intended for Nicaragua or Central America, and that it may be partially caused by the attitude of the President on the Cuba question.

Prince Napoleon and his bride, the daughter of the King of Sardinia, have arrived at Paris amidst great rejoicings. A correspondent of a Belgian paper says: Notwithstanding the rupture of diplomatic relations between Piedmont and Austria, the reigning families of the two countries, who are related, have maintained amicable communications. In consequence, the Princess Clotilde wrote, it is said, with the authorization of the King, her father, to the Emperor of Austria, to announce her approaching marriage with the Prince Napoleon; and it is added that the Emperor returned an affectionate reply of congratulations.

A report prevails that the King of Sardinia, who is a widower, has opened negotiations for the hand of the widow of the Duchess of Leuchtenburgh, a sister of the Empress of Russia, thus drawing more closely his alliance with a power not friendly to Austria.

The Emperor of Brazil has offered his services as mediator between Paraguay and the United States, and they have been accepted by the American Commissioner. This is more sensible than going to war, and it is to be hoped that the dictator of Paraguay will consent to this method of adjustment.

The Russian government has completed a treaty of commerce with Great Britain which was recently signed by the respective ministers of both nations.

A Stockholm letter states that the King of Sweden is struck with paralysis and not expected to recover.

## Political Intelligence.

The Cass-Yrissari treaty as it is called, made between this country and Nicaragua has been agreed to by the Nicaraguan government. It concedes to the United States, and to their citizens and property, the "right of transit between the Atlantic and Pacific oceans, through the territories of that republic, on any route of communication natural or artificial, whether by land or by water, which may now or hereafter exist or be constructed under the authority of Nicaragua, to be used in the same manner and upon equal terms by both republics and their respective citizens—the republic of Nicaragua, however, reserving the right of sovereignty over the same."

The United States agree to extend their protection to all such routes, and to guaranty the neutrality of the same. They also agree to employ their influence with other nations to induce them to guaranty such neutrality and protection.

Nicaragua engages, also, to establish a free port at each extremity of the transit for merchandise and effects in transit.

Troops and munitions of war can be carried by the United States across this transit.

The Postmaster General is authorized to convey the mails across this transit by contract or otherwise.

Nicaragua agrees that in case she should fail to protect persons and property upon this transit, that the United States shall have power to do so, so long as such military protection may be considered necessary.

In the passage of the diplomatic appropriation bill, in the Senate, a clause was inserted, providing that no ministers should receive pay except those named. This is considered a bar to the appointment of any others without the assent of Congress, and will probably save the President from much solicitation.

The President sent in a message last week, asking for further powers to enable him to employ the Army and Navy for the protection of citizens in the Central American States. The subject of the message has not yet been considered.

The Governor of Washington Territory, Fayette McMullen, has resigned.

By the treaty recently ratified by the Senate, the U. S. acquire about 10,000 acres of land from the Yonkton band of Dakota Indians who are to be placed on a tribute and reservation, and the President is authorized to give them lands in severalty instead of being intrusted with large amounts of money as has heretofore been the case with other Indians. They are to be supplied with stock, agricultural implements, farm houses, and whatever else may be necessary to advance them in civilization.

The opposition State convention of Kentucky nominated Joshua F. Bell for Governor without a dissenting voice, Alfred N. Allen for Lieut. Governor, and James Harlan for Attorney General.

The bill making appropriations for the maintenance of the army has passed the House of Representatives. The amount allowed is only 14 millions of dollars.

## Scientific Intelligence.

List of Agricultural Patents for the Week ending February 8, 1859. Self opening gates—J. A. Ayres, Hartford Connecticut, improvement in connection of platform with fastening.

Steam plows—Samuel K. Bassett, Galesburgh, Ill.—Method of attaching plows to engine.

Geo. E. Chenoweth, Baltimore, Md. An improvement in the cam cylinder of harvesters.

James Dundas, of Little Rock, Ill. An arrangement for moving the half shovel teeth on cultivators.

Geo. Essington of Plainfield, Ill. An arrangement of the mold boards of cultivators.

Daniel P. Farnham, Johnstown Centre, Wis. A new self acting cattle pump.

George W. B. Gedney, New York. A new rotary spading machine, being a series of narrow spades that descend into the ground in each other track, and move the soil laterally. A cam movement operates on the spades by means of handles that connect with it.

H. J. Hale, Indianapolis, Ind. Improvement in broad cast seed sower.

Rufus Lapham of New York, a force pump connected with a churn to pump air into the cream.

W. K. Miller of Canton, Ohio. An improvement in the combination of the rocking bar and braces of harvesters.

F. A. Redington, Fredonia, N. Y. A combination of water box, milk vat, and boiler for the manufacture of cheese.

W. R. Rowe of Sharpsburgh, Md. An improvement in corn huskers.

Jer. P. Smith, Hammelstown, Pa. A new arrangement of the teeth in corn shellers.

Augustus Watson, Walnut Run, O. An arrangement of coulters and mole in drain plows that will run the plow out of the ground when so desired.

Michael Boyer, Germantown, Ohio. Arrangement of delivery in seed drills.

E. B. Hall, Woodbury, N. J. An improvement of the stump extractor of J. S. Wood.

Wm. Leach of Clarkson, N. Y. A self acting cheese press.

## General News.

—There are nineteen ocean steamers lying idle at New York, viz: America, Atlantic, Adriatic, Baltic, Canada, Daniel Webster, Ericsson, Falcon, Georgia, Josephine, North Star, Northern Light, Ohio, Ocean Queen, Victoria, Vanderbilt, St. Louis, and Star of the West, not one of which has been employed during the winter, or is likely to be, except the America and Canada, which are undergoing repairs at Hunter's Point, previous to being placed on the route between New Orleans and some of the Mexican ports.

Good.—The Grand River Eagle sets an excellent example by refusing to publish the miserable stuff that Bonner of the N. Y. Ledger has sent around the country as the "Wonderful original Story of the Hidden Hand." The first two chapters prove to be the silliest and merest trash that could be palmed on the community.

—A gentleman of Brookline, Mass., has sent to the Boston Transcript a list and description of the coins and medals struck bearing the head of Washington from the period of the War of Independence to 1805. There were forty-seven of them altogether.

—A Virginia gentleman proposes to donate \$20,000 for the erection of an agricultural college in the vicinity of the University of Virginia, provided the people of the State will contribute \$50,000 as their share for that purpose.

—A driver of an express wagon at Albany, N. Y., has been arrested for robbing the mail at that city. He was seen by the post office agent, Holbrook, to take a package of letters from the office directed from Milwaukee to Boston, and they were found on him, as well as considerable western money. He confessed on his arrest that he had taken letters for several months, being admitted to aid in sorting the mails, and no suspicion being excited that he was untrustworthy.

—The Western Chronicle, of Centreville, notices that the high price of corn has caused the distillery at that place to be closed, and work stopped for the present.

Ready for the Harness.—The editor of the Battle Creek Jeffersonian recently observed that a young lady in his village had a pet horse, which when she held up her cheek, actually kissed it; and he now informs the lady herself, that should anything happen to the animal, by which it would die or get sold, that he, the said editor, may be found in his sanctum at any time!

—Henry Wallam, the English historian, died on the 22d of January last, aged 81 years. He was author of several works, but his "View of Europe during the Middle Ages," and his "Constitutional History of England," are the best known, and contributed most to his fame. He was considered one of the most impartial writers of history known, and of great research.

—Father Gavazzi, who visited this country some years since, recently delivered a lecture on Oliver Cromwell, in London, with the design of aiding to raise a monument to the memory of that great revolutionary leader.

—The New Hampshire Legislature has been obliged to repeal the law giving a bounty for the destruction of crows, as the practice prevailed of gathering the crows eggs and setting them under hens, to ensure the payment of the bounty to the smart inventors of this new method of securing the benefit of the State's liberality.

—Some of his agricultural friends in Connecticut, his native State, have presented Solon Robinson with a gold goblet, handsomely chased, and a suitable inscription.

—A bill has passed both houses of Congress, giving to Mrs. Myra Gaines a pension of \$600 per year. Mrs. G. is the widow of General Gaines, and at one time was supposed to be, by the decision of one of the courts, the heiress to a vast property in Louisiana.

—On the 29th anniversary of the birth day of Washington was celebrated in this city with much display. The oration was delivered before the Mount Vernon Association, and citizens, by the Rev'd Henry Neill. The military turned out, and were reviewed by the Governor, and at night a very splendid ball was given at the Russell House, the proceeds of which were to be given to the Mount Vernon Fund.

—The Hannibal and St. Joseph Railroad, in Missouri, has been completed, so that now there is an unbroken line of railroad from Detroit to Kansas.

—There seems to be well founded evidence that a member of Congress from New York City has been using his position to obtain money from parties seeking legislative aid. It has been given in evidence that he received from one party \$400 as a consideration for procuring a bill to be reported by a certain committee.

—It stated that the health of Senator Charles Sumner is much better, and that he will return from France early in the spring.

—There is a freshet in the Ohio river at present, and the water in the channel of the river was fifty feet deep last Monday.

—Oscar W. Field, teller of the Atlantic Bank, New York, has absconded, and it is found that sixty thousand dollars of the funds of the Bank are missing. Gambling is the supposed cause.

—The mills at Birmingham, in this State, belonging to Messrs. Gardner and Opdyke, were destroyed by fire on Tuesday night. The loss to the owners is said to be \$6,000. There was an insurance of \$3,000. The fire is supposed to be the work of an incendiary.



## The Household.

"She looketh well to the ways of her household, and eateth not the bread of idleness."—PROVERBS.

EDITED BY MRS. L. B. ADAMS.

### THE DOUBLE-HEADED SNAKE OF NEWBURY.

"Concerning ye Amphibians, as soon as I received your commands, I made diligent inquiry:.... he assures me it had really two heads, one at each end, two mouths, two stings or tongues."—REV. CHRISTOPHER TOPPAN TO COTTON MATTHEW.

Far away in the twilight time  
Of every people, in every clime,  
Dragons and griffins and monsters dire,  
Born of water, and air, and fire,  
Or nursed, like the Python, in the mud  
And one of the old Deucalion flood,  
Crawl and wriggle and foam with rage,  
Through dusk tradition and ballad age.  
So from the childhood of Newbury town  
And its time of fable the tale comes down  
Of a terror which haunted bush and brake,  
The Amphibian, the Double Snake!

Thou who makest the tale thy myth,  
Consider that strip of Christian earth  
On the desolate shore of a saltless sea,  
Full of terror and mystery,  
Half-redeemed from the evil hold  
Of the wood so dreary and dark and old,  
Which drank with its lips of leaves the dew  
When Time was young and the world was new,  
And wove its shadows with sun and moon  
Ere the stones of Cheops were squared and hewn;  
Think of the sea's dread monotony,  
Of the mournful wail from the pine-wood blown,  
Of the strange, vast splendors that lit the North,  
Of the troubled throes of the quaking earth,  
And the dismal tales the Indian told,  
Till the settler's heart at his hearth grew cold,  
And he shrank from the tawny wizard's boasts,  
And the hovering shadows seemed full of ghosts,  
And above, below, and on every side,  
The fear of his creed seemed verified;—  
And think, if his lot were now thine own,  
To grope with terrors nor named nor known,  
How laxer muscle and weaker nerve  
And a feebler faith thy need might serve;  
And own to thyself the wonder more  
That the snake had two heads and not a score!

Whether he lurked in the Oldtown fen,  
Or the gray earth-flax of the Devil's Den,  
Or swam in the wooded Artichoke,  
Or coiled by the Northman's Written Rock,  
Only the fact that he lived, we know,  
Nothing on record is left to show;  
And left the cast of a "double head"  
In the scaly mask which he yearly shed.  
For he carried a head where his tail should be,  
And the two, of course, could never agree,  
But wriggled about with main and might,  
Now to the left and now to the right;  
Pulling and twisting this way and that,  
Neither knew what the other was at.

A snake with two heads, lurking so near!  
Judge of the wonder, guess at the fear!  
Think what ancient gossips might say,  
Shaking their heads in their dreary way,  
Between the meetings on Sabbath-day!  
How urchins, searching at day's decline  
The Common Pasture for sheep or kine,  
The terrible double-ganger heard,  
In leafy rustle or whirl of bird!  
Think what a zest it gave to the sport  
In berry-time of the younger sort,  
As over pastures blackberry-twined  
Reuben and Dorothy lagged behind,  
And closer and closer, for fear of harm,  
The maiden clung to her lover's arm;  
And how the spark, who was forced to stay,  
By his sweetheart's fears, till the break of day,  
Thanked the snake for the fond delay!

Far and wide the tale was told,  
Like a snowball growing while it rolled.  
The nurse hushed with it the baby's cry;  
And it served, in the worthy minister's eye,  
To paint the primitive Serpent by.  
Cotton Mather came posting down  
All the way to Newbury town.  
With his eyes agog and his ears set wide,  
And his marvelous inkhorn at his side;  
Stirring the while in the shallow pool  
Of his brains for the lore he learned at school,  
To garnish the story, with here a streak  
Of Latin, and there another of Greek;  
And the tales he heard and the notes he took,  
Behold! are they not in his Wonder-Book?

Stories, like dragons, are hard to kill.  
If the snake does not, the tale runs still.  
In Byfield Meadows, on Pipestone Hill,  
And still, whenever husband and wife  
Publish the shame of their daily strife,  
And, with mad cross-purpose, tug and strain  
At either end of the marriage-chain,  
The gossip says, with a knowing shake  
Of their gray heads, "Look at the Double Snake!  
One in body and two in will,  
The Amphibian is living still!"

—Atlantic Monthly.

### Beauty of Character.

The soul shines out through our daily actions like a ray of light through a prism. All its inherent properties are made visible, and our acts bear the hue and shade of the motives that prompt them. The acts of our life form our character. We may make it pure, harmonious and beautiful as the solar spectrum, or we may make it distorted, and tinted only by the darkest shades. An insipid character is not beautiful, neither is a violent or eccentric one. We do not like a tame, monotonous blending of colors, or a sky draped with interminable, unbroken clouds; neither can we be long pleased with a constant display of brilliant tints, or a sky incessantly disfigured by threatening clouds, from which are ever breaking forth unexpected flashes, ceaseless mutterings, or startling and discordant sounds.

A beautiful character is more lovely to contemplate than the most beautiful picture ever created by artist hands. None, it is true, save "the one" can lay claim to the attribute "altogether lovely," but we can so near approach it as to make our lives like a pleasant scenic picture, which must have

light and shade, and bright and sombre tints, but where all are sweetly harmonized into one serene and charming whole.

Kindness of heart and good temper are the best preservatives of beauty, both of character and features. Without them the loveliest face wants its highest charm, and with them the plainest features become beautiful. To see a fair young face distorted with passion, or to hear a sweet voice broken by angry words, is like having an ugly blot dashed across a fine picture, or a harsh discord jarring and marring the sweetest harmonies of life. O, you who are yet in your youth, and have the forms, the features and the tones of that tender season, it is with you now to mould them for future beauty or deformity. You are painting your own portraits for life and for eternity, and the commonest acts of your every day life are the ones which give the permanent tone and color to your characters. It is your daily intercourse with parents, brothers and sisters, and young companions, the thoughts you cherish most, the motives that influence you oftenest, that give to your characters the brightest tints of beauty or the ugliest marks of deformity. If the soul is beautiful, pure and noble, it will make itself visible through the plainest face, and the world will pay it the homage of respect and admiration, and God will love and glorify it when the humble habiliments of earth which now enshroud it shall be forgotten in their native dust.

### Home Hints.

When people are leaving your house or parting from you, always permit those departing to be the first to say "good bye." If the host or entertainer gives the parting salutation first, it sounds as though they were anxious to get rid of their guests and have them out of sight as soon as possible. We have frequently heard people say to friends leaving their house, "Well, good bye to you," before they had fairly reached the door; as much as to say, "I'm glad you are going, and want the ceremony over as quick as may be." This is a breach of good manners amounting to rudeness, of which no lady or gentleman would be guilty, even if their visitors' absence were more to be desired than their company.

In the first place, visitors should not make their call tedious; they should say all they have to say before starting to go, and, having once started, make their adieux as gracefully as they know how, and leave promptly.

It has been asked if it is proper for a lady guest visiting at a house over night, to make the bed before leaving. No; never make the bed unless you expect to occupy it yourself, but turn the clothes down, shake up the bed, arrange every thing with care and neatness, and leave the room in as perfect order as possible. It is not proper to put a visitor to sleep in a bed that has been occupied by others, without first changing the sheets and pillow slips, and for that reason leave the bed unmade unless you remain another night.

### Female Education.

Much remains to be done in winnowing out of people's minds ridiculous ideas of a certain purely factitious style of living, without which it is impossible to keep house. There are plenty of young men who have yet to unlearn the foppishness of expenses disproportionate to their means, and the sordidness of luxuries which feed, not self-respect, but gluttony and pride. The possibility must be secured to daughters and younger sisters of growing up to be rational, appreciative companions; girls, who, if they are ever married, will choose and value their husband for what he is, and be interested in his calling and his opportunities of observation; women who will estimate the grave and sweet realities of wife and motherhood, beyond any accident of precedence or superfluity. By dismissing false and foolish notions of respectability, by refusing the cheap facinations of a paltry education, of display, by discountenancing restraints misdirected or too rigorous, by cultivating an intelligent and unassuming mode of intercourse, by a careful foresight in assisting young people to prepare themselves for the exertion and cost of one day being the centre of a peaceful, hospitable home,—in these and other ways much may be done to remove obstructions to that gradual acquaintance, and that unaffected respect and attachment, which lead on to happy marriage. In the meantime it may be well to think, with not only the sympathy, but the veneration they deserve, of many among those who will never marry; to assist in multiplying the too few occupations suitable to women, or open to them; above all, not to preach by implication, or otherwise, that a woman's life need ever be dwarfed to a negation, or consumed miserably away, by causes absolutely out of her control. There

are women strong enough to keep their footing in the world singly, without any loss of womanly dignity and sweetness, and to organize around them the moral elements, at all events, of an independent existence. They whose steps are feeble need the more to be helped, rather than hindered, in the struggle with their fainter and more yielding self. If they fall here, is it at all certain that in wedded life their lot would have been auspicious? Alas! how many a faltering will has bent and "given" beneath sanguine, and unfulfilled resolutions to reclaim and humanize the husband, who has pulled the wife down instead to his own mean and wretched level! Marriage is not a lottery: but it is mere wilful blindness to forget that in all its higher aspects, it may be wofully inverted or appallingly debased. Not all the grand provisions of tender ties and gracious instincts, which surrounds one of the greatest of Divine ordinances, will make people pure or happy who insist on being peevish and frivolous, or are worldly, sensual, and devilish. Wedded life is a great and holy mystery, and a source of power for good, often beyond estimation; but unless there be at least one soul filled with unselfish love, and strong in an unflinching faith, the formal union of two persons is no guarantee whatever for a will ennobled or affections enlarged and cleansed. And the faith which so works by love, can make a sunshine in a shady place, without an infant's or a husband's eyes to look into. The harmonies of a developed and transfigured womanhood have been set many a time to other music than that of wedding-bells. She who is enthroned never, under any roof, in a mother's holy sovereignty, may earn the right, in many a house, of compelling every soul to love her. She will create or find an atmosphere in which to keep unwithered and in full pulsation "the heart, out of which are the issues of life." Her hands will redeem the time, and her brain not be idle. Living singly, yet not solitary, when she dies, it will not be till, "emote," by many a touch of gratitude and cheerful reverential sympathy, "the chord of self has, trembling, passed in music out of sight."—*The Church of England Review.*

### Household Varieties.

**American Women at the French Court.**  
We extract the following description of American ladies at a grand reception and ball at the palace of the French Emperor, from the correspondence of the *National Intelligencer*. The writer is graphic, terse and picturesque, and evidently was present, which is more than can be said of some who affect to "write for the papers," but have to draw more on their imagination than their experience:

"Other ladies may care rather to know how their countrywomen appear in the presence of the Empress Eugenie and her glittering court; and as no less than seventy-three of our countrymen and countrywomen had the honor of presentation and of attending a grand ball subsequently, there can be no great secret of opinion. The number—an apt illustration of the populosity of American Paris—was so great that it was necessary to hold them apart. They were accordingly ranged around the walls of a great gilded room by themselves. It was, however, an uncommonly admirable collection; comprising distinguished men, civil and military, and ladies unsurpassed, unsurpassable in Europe. Our excellent Minister was pleased to say that a better collection had never come under his marshalship. The women were beautiful, and for the most part beautifully dressed. The men, gold-laced *regis ad exemplar*, that is after the fashion of the imperial court, bore themselves as if to the manner born—as if cocked hats were an every-day occurrence; and I must say that no other nationality among the two thousand people whom we found afterward in the dancing rooms struck me as being so fine looking, or more refined looking, which is still better. In a room adjoining, with their respective legations, were some thirty English, twenty Germans, nine Swedes, four Danes, with a sprinkling of Greeks, Italians, Spaniards; somewhat, in short, after the fashion of Saint Marks, where may be seen

"Masks of all times and nations, Turks and Jews, Greeks, Romans, Yankee-doodles, and Hindoos." A loud voice at length announced, "*P. Empereur!*" "*P. Empereur!*" At the sound I observed that ladies generally fumbled nervously at crinoline arrangements, while here and there a gentleman reassured himself as it were, upon the subject of cravat. On the whole, however, the overawing was less than might have been expected. The imperial pair, meanwhile, accompanied by Mr. Mason, had entered the room. His Majesty, prescriptively impenetrable, inscrutable, as described and reiterated, looked all the impenetrability due to his reputation. For the rest, he is shorter than was supposed by those who had only seen him on horseback. Like Tom Moore, he sits tall. He is much taller, however, than his prophetic uncle.—He wore white small-clothes, a simply embroidered blue coat, and the grand *cordon rouge*. The Empress walked at his side. They were unattended. No man of sixty could have read the poems of his youth without recalling the bride of the East:

"Fair as the first that fell of womankind,  
When on that dread yet lovely serpent smiling."  
A thousand such glowing parallels might be applicable. A greater degree of grace, a more gentle, sweeter character of beauty—in short, a more refined-looking lady is probably inconceivable. Her *toilette* also bore all this character, except possibly for a somewhat over-profusion of those mysterious substructures of expansion, seen, yet comprehended not. Her gown had the appearance of being woven of fleecy clouds, of the kind known to meteorologists as *cirri*. There were about it ranges of dark green velvet formations, clasped with sprays of diamonds. Her head

the semblance of a kingly crown had on; glistening in brilliant, and falling behind in a green velvet fold, from which depended a score or two of diamond tags or tassels, trembling with every movement, (each a grace, be sure,) and producing every charm and artistic triumph of which coiffure device is capable.

Their Majesties bowed graciously as Mr. Mason pronounced the name of every individual in turn. The Minister's memory struck me as being most extraordinary. Not a word was said by others; and when the pair had walked along the entire line and re-approached the door through which they had appeared, the audience was ended by a general curtsy and general bow. They disappeared, and being gone, we were all men and women again. The clang of orchestra now rang through the palace. Folding doors were opened, and two thousand people strove to get footing in the *Salle des Maréchaux*, a room capable of about six hundred. Nothing but packing and wormy movements were henceforth possible; and any description of the crash of crinoline in an over-crowded court ball would answer for the rest. Most of us came away more tired than *forgets* after twelve hours at the oar, but with a general impression, in regard to the remarkable Emperor, that we had looked upon a spectacle in conflict somewhat with ideas of the universal vanity of human wishes.

**Russia in Possession of the Primitive Edens and Sacred Places of the Race.**—Biblical geographers point to the lake Iau, in northern Armenia, and now a Russian possession, as the spot where once was situated the paradise lost by the fault of Adam and Eve. Indo-European theorists, especially Bunsen, locate the cradle of the race (or the primitive Eden) in northern Asia. It occupied all the present western and part of the eastern Siberia, extending from 40° to 53° latitude, and from 60° to 100° longitude. The Arctic ocean, at that time as pleasant as the Mediterranean, with the Ural Mountains as islands, was the northern boundary. On the east lay the Altai and the Chinese Blue or Celestial Mountains; on the south the Paropamisus, or Hindoo-Koosh; and on the west the Caucasus and the Arrarat.

Both the Edens are now Russian possessions.—Besides, Russian influence is preponderating in Jerusalem; and the spot in Rome assigned by archaeologists as the one where Romulus was nursed by a she-wolf, is Russian property, having been bought by Nicholas for the sake of excavations. By a curious coincidence Russia owns in this way the places most sacred in the history of our race. —*N. Y. Eve. Post.*

**Thrilling Incident of the Battle of Bunker Hill.** Mr. J. T. Headley, in his "Diary of a Chaplain in the Army of the Revolution," relates the following:

"At the Battle of Bunker Hill, as the British were advancing through Charlestown to the attack, a soldier entered a house where the husband lay sick. His wife was young and beautiful, and hearing the soldier in the next room, went out to meet him. He immediately addressed insulting proposals to her. Being angrily repulsed he attempted violence, when her screams aroused her sick husband from his bed. Nervous with the sudden excitement, he leaped up, and seeing his wife struggling in the arms of a British soldier, ran him through the body. The man fell back on the floor, and as his eyes met those of his destroyer, he shrieked out, 'my brother.' The recognition was mutual, and with the exclamation, 'I have murdered my brother,' the over-excited invalid husband fell dead on the corpse. These unhappy brothers were Scotchmen. One had emigrated to America several years before, the other had joined the English army, and after a long separation thus met to perish together."

### Household Recipes.

#### Relief of Neuralgia.

As this dreadful disease is becoming more prevalent than formerly, and as the doctors have not discovered any method or medicine that will permanently cure it, we simply state that for some time past a member of our family has suffered most intensely from it, and could find no relief from any remedy applied, until we saw an article, which recommended the application of bruised horse radish to the face, for toothache. As neuralgia and toothache are both nervous diseases, we thought the remedy for the one would be likely to cure the other, so we made the application of horse radish, bruised and applied to the side of the body where the disease was seated; it gave almost instant relief to the severe attack of neuralgia. Since then we have applied it several times, and with the same gratifying results. The remedy is simple, cheap, and may be within the reach of every one.—*Laurenville Herald.*

#### Cresote for Warts.

Dr. Rainey of St. Thomas's Hospital, London, has furnished a communication to the *Lancet*, detailing the effects of cresote applied to warts.—He applied it, among other instances, to an obstinate warty excrescence on the finger, and then covered it over with a piece of sticking-plaster.—This course he pursued every three days for two weeks, when, on examination, the wart was found to have disappeared, leaving the part beneath it quite healthy.

### For our Young Friends.

#### Miscellaneous Enigma.

I am composed of 19 letters.  
My 19, 14, 18, 12, is a kind of soil.  
My 12, 8, 13, 14, 8, is an officer.  
My 12, 10, 8, 19, 14, 6, 4, is a fertilizer.  
My 9, 15, 8, 19, 14, 6, 4, is a distance.  
My 9, 19, 5, 17, 4, is a verb.  
My 10, 12, 14, 17, 4, is a preposition.  
My 19, 14, 1, 7, 17, 4, is a participle.  
My 8, 4, 10, 5, 17, is a conjunction.  
My 14, 17, 7, 14, 6, is a vegetable.  
My 2, 11, 14, 17, is a metal.  
My 13, 5, 12, is a nickname.  
My 8, 3, 12, is a part of the body.  
My whole, is the name of an agricultural paper.

Brady,

Answer to poetical enigma in last number.  
I took Niter.  
My load was Salt.  
The Doctor's name is Peter.  
Niter is equivalent to Saltpeter.

### A Paradisiacal Story.

Continued.

Supper was served in the dining-room, and partaken of by the company standing around the table. There was much merry talk and enjoyment in spite of the staid dignity of the hostess who, supported by the solemn Mr. Standish, graced the head of the table.

Whether accidentally or not, it so happened that, yielding to the guidance of Mrs. Minnett, who was his partner at supper, the young lawyer found himself very pleasantly situated between that amiable lady and the bright eyed Isabel Brighton. It was true young Hendricks stood at her right hand, and evidently tasked to the utmost his powers of entertaining; and it was true too, that directly opposite and most pertinaciously intent on making herself agreeable across the table was the frizzed and flounced milliner; yet Allison looked happy, and seemed to enjoy with double zest the rather desultory conversation, as it imposed no restraints, and allowed each guest, whether acting the part of talker or listener, to speak, smile, or even laugh or be silent in their own natural manner. He was unusually animated, and was making some pleasant remarks to his fair companion, when Miss Dressmore, whose cat-like eyes had been watching every movement of the envied young stranger at his side, suddenly thrust her head as far forward as her neck would permit, and exclaimed in her small shrieking whisper;

"Is it possible, Miss Brighton, that you drink water instead of tea?"

"Yes, I prefer water;" said Isabel, smiling in an amused manner as she set down the glass she had raised to her lips.

"La, how old maidish!" said Miss Dressmore, giving her tortuous tresses a slight toss backward.

"Indeed; is it?" said Miss Brighton arching her brows with something like surprise.

"Yes, la; it's a sure sign; isn't it Mr. Allison?" asked Miss D. with an appealing glance at the young attorney, whose eyes were full of suppressed mirth at this unexpected call upon his gallantry.

"Begging pardon for expressing a dissenting opinion, Miss Dressmore," he replied quickly, "I had always supposed that tea in its purity, was the undisputed prerogative and peculiar consolation of feminine single blessedness in its advanced stages. The idea must have been one of spontaneous growth, for I cannot recollect of ever having heard it spoken in so many words, still it seems as firmly fixed in my mind as any other immutable truth, and—"

"Mr. Allison," interrupted Mrs. McCleanly "do you not think habits of thought and speech grow upon us imperceptibly, and that we often allow ideas which in themselves are simply ridiculous, to remain in our minds without an effort to dislodge them, till at last we come to consider them as sensible and unquestionable truisms?"

"Undoubtedly, madam," replied Allison, bowing gracefully toward the hostess; "and this tea idea you would class in that category?" he added with a questioning tone, and with a somewhat mischievous smile playing about his lips.

But without heeding more than the admission he had made, Mrs. McCleanly continued;

"And is it not equally true, Dr. Minnett, that persisting in any whim—either of drink or diet, to gratify a conceit or maintain an affected singularity, we often come to regard habits thus formed as necessary to our health, and to imagine our tastes natural when in reality they are only acquired?"

"That is an established fact, madam, corroborated by the world's experience, and the testimony of all medical writers," replied Dr. Minnett; "and I have no doubt that if the Creator had seen fit to make all our springs bubble with green tea, and our rivers to pour down streams of coffee and chocolate, the taste for those drinks would have been quite as natural to us as the taste of water is now. In my opinion, custom, example and practice have much more to do with our tastes than nature ever had; it is a subject of curious interest to which I have devoted some study. If authors were as rare now as when I was young, I should be tempted to publish a treatise entitled the "Education of the Palate;" the matter for which has been accumulating in my brain ever since I took my first taste of tobacco."

"An excellent idea, Doctor," "Why hesitate?" "Why hide your light when it is so much needed;" were the simultaneous exclamations of several of the company.

Mrs. McCleanly said nothing, but most of her guests, surprised and pleased at the happy turn the Doctor had given to the conversation, added their mite in making the stream diverge still farther and farther from the



channel where the originator designed it should flow.

Mirth and good humor soon prevailed, and during the evening Mrs. McCleanly had the self-command to prevent the chagrin she felt from being seen, and the good sense to treat all her guests with a show of respect, though Miss Dressmore and the Rev. Mr. Standish were the evident favorites.

The glow of gratitude that lighted Isabel Brighton's countenance and made her so surpassingly beautiful in Allison's eyes, well repaid Dr. Minnett for the promptness with which he entered the lists as her champion and turned the weapons back upon her antagonist. The Goldings, the Rev. Mr. Kneeland and his wife and Mr. Hendricks and Allison also testified their thanks by the zeal with which they sustained the Doctor in his benevolent efforts to steer the little bark of social enjoyment clear of the rocky beach of pointed personalities on which it had so nearly been wrecked. The Hardy's, if they thought of it at all or even heard the first murmur of the threatening surges, only withdrew still more securely behind the screen which alike hid from them the sight of danger and shut them out from all participation in the common sympathy of joy when the danger was past. Mr. Bailey and Miss Graves became deeply interested in a sentimental conversation, and were soon comfortably enveloped in a web of romance of their own spinning and weaving. Mr. Standish discussed religious doctrines with Mrs. McCleanly, and political economy with her husband. Miss Dressmore, when Dr. Minnett was not at her side, confined her remarks chiefly to topics connected with her trade, with the details of which she amused Mrs. Standish and Mrs. McCleanly by turns, and consoled herself for Allison's loss and Miss Brightons' triumph by luxuriating in the multiplicity of her rustling flounces.

Yes; there was playful wit, and light and merry laughter, and love and envy, and plotting and counterplotting, and sentiment and gossip, and religion and its counterfeit, in Mrs. McCleanly's little parlor that night, and discordant elements as they were, right happily did they seem to harmonize under the magic influence of Dr. Minnett's unconquerable good humor and exhaustless fund of small talk; for, from the moment of Mrs. McCleanly's first maneuver, knowing what he did of the parties most concerned in her plans, he took upon himself the task of applying a counter-charm to every art she used, and so quietly and cleverly was it done that those who were most interested suspected least. Indeed it was not till the winter was nearly over, and the leading events were drawing towards their consummation, that I began to see clearly the policy of all the parts that were enacted in the course of that evening's entertainment.

But the evening passed away, and the party with it. The next day, however, each individual was summoned to re-appear before Mrs. McCleanly's tribunal of judgment, and with the entrance and exit of each one I heard the distinct echo of the foot-falls on the door steps. Ominous echoes they were too. The truth was, Mrs. McCleanly had over-reached herself, and not caring to acknowledge it even to herself, she took full satisfaction for the time out of those who had so completely frustrated her designs. How Mr. Allison, who owed so much of his success to her husband's teachings and to his influence, and to whom she had always shown so much kindness, blended with the care and anxiety of a mother for his future welfare, how he could be so ungrateful to them, to her, and so blind to his own interest as to prefer the society of a young, and for aught he knew, a giddy, adventurous girl, to one whose maturer age and confirmed habits of industry so well qualified her for a companion of sense, and a prudent, thrifty and profitable wife, was more than she could account for. Mr. Allison was perfectly well aware, she said, that his friends only wished to influence him for his own good, and he knew, or might know, if he chose to see it, that Miss Dressmore appreciated his talents instead of only admiring his person, as it was quite evident some others did, for what else could Miss Brighton know of him from only a month's acquaintance. Miss Dressmore on the contrary had improved every opportunity within the year past of being where he was to speak in public, that she might familiarize herself with his manner of thinking and style of speaking, both of which she doubtless overestimated in her enthusiasm to do full justice to a young and ambitious man. So Mrs. McCleanly thought, now that she saw with what indifference that interest had been repaid. But she felt sure he had been influenced by others; and why Dr. Minnett, whom both herself and Miss Dressmore had always patronized, should so completely forget him-

self and them, as to take part so decidedly with an entire stranger was quite a mystery to her. However, it was nothing more than might be expected; people who were obliged to associate with uncongenial minds must look for ingratitude, perverseness, and even hypocrisy from them; still Christian duty and the demands of society required that such things should be in a degree overlooked; we should have more faith in the better qualities of the human heart, and hope that the influence of example might lead minds naturally low and grovelling to aspire to something higher than the mere selfish enjoyment of the present moment. This faith, and this hope would lead us to throw the mantle of charity—at least it would teach us to be more forbearing towards those beneath us, as we know that their errors will sooner or later be overtaken by retributive justice, and then, if not before, they will be made to see the folly of rejecting the counsel of friends and trusting so much to the misguided impulses of the moment. But time would tell who were right and who were wrong; it was useless to waste words on those who wilfully closed their ears against advice, and shut their eyes to their best interests when so plainly set before them by the most disinterested friendship. And with this sensible conclusion, Mrs. McCleanly sighed a melancholy sigh, and turned her conversation to those members of her class whose conduct being less flagrantly opposed to her wishes demanded less severity at her hands, (alias, tongue!) But the great event of the party was over now, I had been introduced to the first class as they stood marshalled under the eye of their leader; (to confess the truth between you and me, they seemed like a very rebellious, self-willed set, full of the idea that they were quite capable of taking care of themselves, and quite determined to do so;) the next step was for me to return the calls, or rather, in company with Mrs. McCleanly to spend a few moments at the house of each guest who had honored us with their presence.

It was one of those winter days so common here when earth and sky seem to delight in contrast; all above was bright, glorious sunshine, under foot was half thawed mud and melting snow, or, as Hannah more emphatically expressed it, "the whole street was one complete slush;" but it was the appointed day, the ladies would be in their parlors waiting for us, there was no alternative, we must go, or run the risk of hurting the feelings of the whole class by appearing to care more for our own convenience than for what our sense of duty told us was due to them. And we did go; but that street!

O Mercury, thy winged feet  
Were surely made for such a street!

Sighed I, as I followed Mrs. McCleanly, vainly endeavoring to get my feet into her tracks at each successive step before the muddy slush quite filled them up, for I did not feel safe to step anywhere without a precedent, not knowing how far below the bottom might be. There were no side-walks in West Paradise, and the street in its widest sense was the common property of teamsters, horsemen, footmen and various domestic animals. Sundry spirited looking pigs, with sharp, chiselled outlines of form and feature, were industriously turning over the mud in front of the house and shop doors, and pensive faced cows lost in dreamy reveries leaned against the sunny side of board fences, taking no heed of passers by, and little caring that to escape too close proximity to their innocent heels, timid women were forced to step aside from the "even tenor of their way" and frequently went into unsuspected depths of slush-hidden ruts and wagon tracks.

Our journey was short but perilous, and having with much maneuvering managed to steer safely through two or three shoals of ravenous land-sharks, and doubled some half dozen cow promontories, we finally arrived at the Hardy's, bearing many outward marks of free soil principles attached to our skirts.

Mrs. Hardy, timid, shrinking little woman, looked as though she were but half at home without her husband at her side; but she smiled pleasantly at receiving us, replied in quiet little monosyllables to all we said, and seemed greatly relieved when we went away.

Miss Dressmore, as I have said, lived directly opposite Mr. Hardy's, but the programme of our afternoon's performance was so arranged that we were to leave her till the last; she was to be like a lump of sugar in the bottom of a cup of tea; we were to take the milk and water first and end with the sugar. We waded on, perseveringly and hopefully, making our calls in the regular order of succession, at Dr. Minnett's, at the Rev. Mr. Standish's, and at the Rev. Mr. Kneeland's; then crossing over to the Goldings' and so coming down to Miss Dressmore's on the opposite side. I need hardly say that we found all the parties at home, and all just what

they had appeared to be on the night of the party. I was particularly pleased with the Kneeland's and Goldings, and still more so with Miss Brighton. Why or how it was I could not tell, but, strangers as we were, a sudden friendship seemed to spring up between us which resulted in many agreeable meetings in the course of the winter. When I first saw her I said, "what a nobly beautiful woman!" and I said the same every time I saw her, but with still more emphasis and a deeper meaning, for hers was a beauty that never paled, and that you could not fathom.

But Miss Dressmore; I am running too far away from her. The door of the room she occupied as parlor and shop together, opened directly upon the street, there was one step between the threshold and the ground, and just in front of this was a little pool of muddy water over which a slender board had been thrown, evidently for our accommodation, as there were yet no foot marks upon it. We stepped warily across this little bridge, but before we reached the door it was hastily thrown open by Miss Dressmore who reached out and seizing her friend's hand drew her into the house, expressing her great joy at seeing her and apologizing for the muddy street in the same breath. Miss Dressmore at home was the fac-simile of what I have before described her, frizzes, flounces and all, save only the white gloves. Her hands were encased in rusty black mits which had once been gloves, but the dilapidated finger ends having been clipped off, what was left served the double purpose of concealing the dinginess of her skinny hands, and showing the glimmer of her yellow rings. While she and Mrs. McCleanly were comparing the various rumors they had heard respecting Miss Brighton, the object of her visit to such an out-of-the-way place as West Paradise, the probable extent and consequences of her visit, and other matters of equal importance; my eyes took in a running inventory of the contents of the room. There was but one window in front, and that was used as a show case, being draped with coarse muslin curtains, coarsely embroidered, to the window side of which were attached by pins, paper patterns in pink and green, two or three bouquets of doubtful fashion, a cap or two, bunches of wire, ratans, and a few faded artificial flowers. A strip of rag carpeting lay across the middle of the floor, there was a bed in one corner of the room and a work table in the other. I had gone as far as the table in my exploration when Miss Dressmore, giving a shrill scream, sprang to the door and throwing it wide open exclaimed:

"Get off, you little wretch! get off! that's my board, and you've no business on it; get off I say!"

"I'd like to know if this street ain't public to every body!" responded a sturdy looking little rascal who had taken his stand on the middle of the board in question and now stood with folded arms, coolly tetering up and down and sending the muddy waves of the pool beneath him up to the edge of the milliner's door step.

"Get off, or I'll have the constable take you up for trespass" screamed she. "You're not on the street, you're on my board! get off, I tell you! see how you splash the mud on my clean step; I scoured it to-day!"

"I haint splashed it any yet, but I will now," said the boy, and suiting the action to the word, he gave a sudden spring which bent the board to the bottom of the pool and sent the dark streams flying in every direction; the little step was almost submerged for a moment, up over the milliner's flounces came the scattering splashes, up on her window they splattered, and left their dark stains over half the front of her little dwelling.

"There! now tell me I haint a right to stand where I please in the street!" shouted the youngster, but his voice was drowned by that of Miss Dressmore who now absolutely yelled out:

"Get off! you impudent little wretch! get off! I say, or I'll take up the board and break it over your head!"

"Well, I'd like to see you do it;" said the boy with most provoking coolness, as he maintained his position on the board, quietly tetering up and down and at each movement sending the muddy waves nearer and nearer the step on which the enraged milliner was standing.

"I will do it, you vile imp! and I'll break your head too!" she screamed gathering up her flounces and setting one foot on the ground, which it had no sooner touched than it was buried ankle deep in the "slush" sent up by another sudden spring of the boy who had been anticipating her movements.

"You vile torment! You little devil!" shrieked the milliner, springing back to the threshold and shaking her clenched hand at the boy; "you're the pest of the street, and

of the whole town, and think because your father's rich you can do anything; and he upholds you in it, but I'll—you needn't stand there grinning at me so, you impudent little wretches!" she cried in a still fiercer tone, turning to a group of boys and one or two young men, who in passing had paused to listen to this unwonted clamor in their usually quiet street. "Be off, every one of you! I'll let you know—" she paused as if struck dumb, sprang back into the room and shut the door with a bang that made the whole house ring.

As the group outside passed by the window, I saw Allison's face among them! The boy had called one of his comrades from the crowd, and the two stood side by side on the disputed board, enjoying the splashing mud and the milliner's discomfiture to their heart's content.

(Concluded next week.)

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## 3,000 VERBENAS!!!

THE following varieties, and many others not enumerated, can be supplied during the season, forming an unrivalled collection:—  
\*Charles Dickens, (Edmond's) Rosy lilac, dark centre, large eye.  
\*La Goudalier, Soft rosy crimson, fine truss and form.  
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\*Black Prince, Very dark purple, large and fine.  
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\*Mrs. Holford, Large waxy, white truss, extra.  
\*Imperatrice Elisabeth, (Pulchella Monetta), a distinct species, with elegant incised foliage; color, violet rose, with pure white flakes down each side of the petals.  
\*Brilliant de Taise, Shaded crimson, large and fine.  
\*Madam Kien, Soft pink, slightly striped.  
\*Mrs. H. Williams, Very fine white.  
\*Chieftain, Dark purple, large truss, fine.  
\*Madame Viard, Light and dark pink, striped.  
\*Incomparable, Light and dark purple, striped.  
\*Striped Eclipse, Striped pink, very fine.  
\*Queen of Purples, Fine dark purple.  
\*Seine de Jour, White, large truss, excellent.  
\*Kirt's Defiance, Colour light, pink centre, extra large bloom and truss.  
\*Anacron, Very fine scarlet, distinct variety.  
\*Robinson's Defiance, Brilliant scarlet.  
The above twenty varieties form a very choice selection, price 12½ cents, for strong plants in Pots. For an assortment, \$1.25 per doz.; or upon the receipt of \$2, four more varieties will be added, our selection, making twenty-four varieties equal to any in cultivation.  
They will be packed in moss, each plant distinctly labeled, (without the pots) and delivered, at the Express Office or R. R. Depots in Detroit, at the same price, or sent by mail free of postage for \$1.50 per doz.  
Those marked thus \* supplied at \$5. per hundred.  
All orders should contain a remittance.  
Also the following varieties, will be added to the above list after April 15th, at 15 cts. each plant: Celestial, Attraction, Madam Abt, Giant of Battles, Madam Plantamour, Prince of Wales, Dred, Tranby, Wonderful, Victory, Rosy Gem, La Stella, Sarah.  
The best old varieties supplied at 10 cts each, \$1. per doz.; \$6 per hundred.  
A choice collection of Dahlias, among them first prize Dahlias at the State Fair in October last, in Detroit, which will be ready to send out in April and May, price 25 cts. each; \$2 per doz.; \$12.50 per hundred. Wilson's Albany Seedling and Hooker's Seedling Strawberry, Concord, Delaware, Diana, Logan, and Rebecca Grape vines.  
FRUIT, ORNAMENTAL AND DECIDUOUS TREES.  
10,000 Norway Spruce and a large assortment of all the hardy varieties of Evergreens, 50 choice varieties of hardy ever blooming Roses.  
Greenhouse Plants—Bulbous roots, bedding plants, celery, Tomato, and cabbage plants in the proper season. For sale at reduced prices, all orders promptly executed, and articles packed to bear transportation any distance.  
Address, HUBBARD & DAVIS,  
Box 266, P. O., Detroit, Mich.

## TREES FOR SHELTER ON THE PRAIRIES.

WE solicit the attention of Orchardists, Nurserymen and Farmers in the Prairie regions of the West to our immense stock of

**NORWAY SPRUCE.**  
The most hardy, rapid growing and beautiful Evergreen tree and the best adapted for forming belts and screens for the protection of gardens, orchards and dwellings in all exposed situations.

Our stock embraces all sizes from one to six feet in height, frequently transplanted and fitted for safe removal.

Priced lists for next spring furnished on application and the following catalogues are sent gratis, prepaid, to all who apply and enclose one stamp for each.

No. 1.—Descriptive Catalogue of Fruits.  
No. 2.—Descriptive Catalogue of Ornamental Trees &c.  
No. 3.—Descriptive Catalogue of Greenhouse and bedding out plants.  
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ELLWANGER & BARRY,  
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## THE SYRACUSE NURSERIES

OFFER FOR SALE FOR THE SPRING OF 1890.

## OF FRUIT TREES.

Apples—8 years old; a very general assortment.  
4 years old; a limited assortment of early and late varieties.  
2 years old; Dwarf, very fine.

Pears—1 and 2 years old; Dwarf and Standard, so extensive in variety as to enable us to fill almost any order.  
Cherry—1 and 2 years old; Dwarf and Standard, beautiful Trees.

Peach, Apricot, Plum and Nectarine—Best varieties.

Currants—White and Red Dutch, Victoria and twelve newer varieties.

Gooseberries—Houghton's Seedling, a good stock, and some of the best English sorts.

Blackberries—Lawton, or New Rochelle, and Dorchester.

Raspberries and Strawberries—Assortment especially large and desirable, of all the best old and new kinds.

Grapes—An immense stock of Isabella, Catawba and Clinton, 1 and 2 years old, exceedingly strong and well rooted; also, very fine plants of the Concord, Delaware, Hartford Profligate, Northern Muscadine, and Union Village; besides a superior collection of Foreign Grapes, in pots.

Evergreens—European Silver Fir; American and Norway Spruce; American Arbor Vitae; Balsam; Hemlock; Austrian, Corsican and Scotch Pines.

Deciduous—American and European Mountain Ash; Weeping Ash; American Elms; Weeping Elms; English Weeping Elms; (very graceful); Horse Chestnuts; Catalpas; European Larch; Silver and Sugar Maples; Linden; Tulip Trees, Nursery grown and very fine; Walnut; and Weeping Willow.

Shrubs—Altheas; Fringe Trees, Purple and White; Double Flowering Almond, Cherry and Peach; Honeysuckles; Lilacs; Snowballs; Sweet Briar; Spiraea; Double Flowering Thorn, White and Rose colored, &c.

Roses—One of the best and largest collections in America; best plants of the Augusta &c.

Dahlias—Paeonies, Border Plants, Bulbous Roots, &c., in great variety.

OF MISCELLANEOUS ARTICLES,  
Rhubarb—Cahoon's, Giant, Victoria and Linnaeus.  
Asparagus—Very strong, 1 year old roots.

Hedge Plants—Osage Orange; Honey Locust, Privet, 1 and 2 years; Red and White Cedar.

## FOR NURSERYMEN.

500,000 Apple Grafts, worked on strong roots, at \$6  
50,000 Manetti Rose Stocks, very fine, " 15  
50,000 Mazzard, Cherry do " 4  
200,000 Apple Seedlings, 1 year, do " 4  
Nurserymen will find these very superior.

Our articles generally are of the finest growth, and will be sold at lowest rates. For particular information see

Our Several Catalogues, Viz:  
No. 1. A Descriptive Catalogue of all our productions.  
No. 2. A Descriptive Catalogue of Fruits.  
No. 3. A Descriptive Catalogue of Ornamental Trees, Shrubs, Roses, &c.  
No. 4. A Descriptive Catalogue of Dahlias, Green House, and Bedding Plants, &c.  
No. 5. A Wholesale Catalogue for Nurserymen and Dealers.

Forwarded on receipt of a stamp for each.  
THORP, SMITH & HANCHETT,  
Syracuse, N. Y., February, 1890. 8-4w

## FRUIT TREES FOR SALE!

125,000 APPLE TREES  
OF THE  
CHOICE VARIETIES.

All thrifty vigorous trees. We sold from this Nursery last year to many Farmers and Fruit Cultivators, and have had no complaint of the trees dying. In every case where we have had an opportunity to examine them, they have lived and grown well, and of those we have heard from the testimony is the same. Also,

Pear, Peach, Cherry, Plum, Quince,  
AND OTHER VARIETIES.

For sale by  
BLOSS & CO.,

No. 22 Monroe Avenue, Detroit.



# MICHIGAN FARMER.

R. F. JOHNSTONE, EDITOR.  
Publication Office, 130 Jefferson Avenue.  
DETROIT, MICHIGAN.

## THE MARKETS.

### Flour and Meal.

| Article.                  | Detroit.    | New York.   |
|---------------------------|-------------|-------------|
| Flour, superfine 9 bbl.,  | 5.37 @ 6.00 | 5.40 @ 5.60 |
| Extra, .....              | 6.00 @ 6.75 | 6.05 @ 6.80 |
| Double Extra, .....       | 6.50 @ 7.00 | 6.60 @ 7.25 |
| City Family, .....        | 7.00        |             |
| Corn meal, per 100 lbs.,  | 2.00 @ 2.25 | 1.75        |
| Bye flour, per bbl.,      | 2.00 @ 2.25 |             |
| Milk feed, Bran, per ton, | 16.00       |             |
| Coarse Middlings, .....   | 20.00       |             |
| Fine Middlings, .....     | 27.00       |             |

### Grain.

| Article.                  | Detroit.    | New York.   |
|---------------------------|-------------|-------------|
| Wheat, White, .....       | 1.35 @ 1.40 | 1.50 @ 1.60 |
| Red Winter, .....         | 1.15 @ 1.25 | 1.30 @ 1.40 |
| Corn mixed western, ..... | 0.75 @ 0.77 | 0.84 @ 0.86 |
| Oats, .....               | 0.52 @ 0.55 | 0.60 @ 0.63 |
| Barley, 900 lbs., .....   | 1.60 @ 1.80 | 1.60 @ 1.90 |
| Rye, .....                | 0.82 @ 0.86 |             |

The markets remain steady with but little doing. Very few parcels of wheat have been offered at the mills or to store since last week, and there seems prevalent a disposition to hold on. We heard of the purchase of 1,000 bushels of the old crop of 1856, at \$1.50.

The eastern markets which last week showed a disposition to improve in prices, have slightly retrograded, and we now see but little if any improvement.

The telegraph quotations for the several grades of flour last week were:

|                                     |                   |
|-------------------------------------|-------------------|
| Super western, .....                | \$5.40 to \$5.60. |
| Common to good extra western, ..... | 6.05 to 6.30.     |
| Canadian and double extras, .....   | 6.50 to 7.25.     |

The *Economist* noticing the advance quoted last week, says: "The demand is confined to the east, and the local trade. The receipts continue light, but the stock is ample for all, or at least the present wants." This indicates that we shall have the market all to ourselves till navigation opens. In his last circular, Edward Bill, grain broker remarks, "The export trade to England has quite ceased, no clearances having been made to Liverpool, and 10 bbls only to London, since the 21st of December last. The market for wheat continues to improve, the article being offered only at rates much above the views of millers. There is but little doing, and the trade rules quiet. Indian Corn is firmly held, the Southern, and Jersey new sells on arrival, for immediate use."

Corn fluctuates a little, if the weather is good and the roads are such that travel is accommodated, corn goes down a few cents; if the roads are soft, corn goes up. There has been about 1,000 bushels per day sold to the Canadian trade at 75 to 77 cents. Corn that comes forward in wagons in the car sells at 73 to 75 cents.

Oats continue very scarce, and but few to be had; prices ranging from 55 to 60 cents, and for good samples from wagons of heavy grain, five shillings have been paid.

Barley is in request, that is to say, good samples are much wanted for malting. A medium lot, of middling quality sold at \$1.50 per 100 lbs., and \$1.90 would be paid for choice samples.

### Live Stock, &c.

| Article.                           | Detroit.    | New York.   |
|------------------------------------|-------------|-------------|
| Cattle on foot, 1st quality, ..... | 0.65 @ 0.45 | 0.55 @ 0.6  |
| do medium, .....                   | 0.3 @ 0.35  | 0.45 @ 0.5  |
| Beef in carcass, .....             | 0.35 @ 0.45 | 0.5 @ 0.7   |
| Sheep, .....                       | 3.00 @ 5.00 | 3.75 @ 5.50 |
| Mutton in Carcass, .....           | 0.4 @ 0.45  | 0.5 @ 0.7   |
| Hogs over 250 lbs., .....          | 7.25 @ 7.50 | 7.50 @ 7.75 |
| do under 250 lbs., .....           | 7.00 @ 7.25 | 7.00 @ 7.25 |
| Live hogs, .....                   | 0.5 @ 0.55  | 5.34 @ 7.00 |
| Pelts, .....                       | 1.50 @ 2.00 |             |
| Hides, .....                       | 0.7 @       |             |

There have been but few, if any purchases of live stock this week. The butchers supply themselves so well last week, that they have not yet had time to sell out. Prices under the reports of the New York market remain firm, and with no material change here. There have been a large number of herds taken through this city on their way eastward. A portion of these have been in very good order, but a larger portion have been very poor.

At Albany the accounts of sales show a slight advance, and rates are thus quoted:

|                         |          |
|-------------------------|----------|
| Premium, .....          | 6 1/2 c. |
| Extra, .....            | 6 1/2 c. |
| First quality, .....    | 6 1/2 c. |
| Second quality, .....   | 4 1/2 c. |
| Third quality, .....    | 4 1/2 c. |
| Inferior quality, ..... | 3 1/2 c. |

Some Kentucky cattle in fine order sold there at \$115 per head; their weight being 1750 pounds each.

Some Ohio cattle weighing 1325 pounds each sold at \$76.00, whilst a lot from Canada weighing only 1200 lbs. each, sold at \$60.00 per head.

The number of sheep going forward is small, and we note that the arrivals of sheep at Albany and New York are much less than for the same time last week, at Albany there being nearly 3,000 of a difference. The prices are consequently firm and the average per head is \$5.14. The market for mutton and sheep remains the same as for last week. We noted several carcasses of dressed mutton sold yesterday at 4 cents. Beef in our market, of fair quality, dressed, sells 4 1/2 to 5 cents per lb. per side.

We saw some small hogs selling in market at \$6.75 and \$7.00. The high prices have slightly declined as they could not be maintained.

The wool market remains quiet here, and there is much less disposition to go beyond the highest rates quoted last week than there has been. Dealers are awaiting the particulars of the large sale that was to be made in Boston on the 24th, as that will be a guide for the future operations. It seems to be a general opinion that prices have reached the topmost ring of the scale.

We are not prepared to say they have not. The latest news from the English markets show that prices have receded a little. The following on this subject is taken from the circular of John L. Bowes & Bro's circular of Jan. 18th, Liverpool:

During the last few weeks the unsettled state of political affairs on the Continent has caused a little hesitation and quietness in some branches of the Wool trade, and at Bradford the value of Domestic fleeces has, in some instances, receded 1/4d. to 1d. per lb., but Foreign kinds of the Merino class, also some coarse descriptions, have in the same period been in active demand, and advanced about 1d. per lb. The general position of the market remains unaltered, viz., a large consumption and moderate stocks.

At the Public Sales, which commenced here 18th inst. and terminated yesterday, 15,371 bales East India and 10,872 bales other kinds were offered, and attracted a large attendance of buyers; upon the whole competition has been remarkably steady, particularly from Home consumers, the Exporters taking a smaller proportion than usual. Compared with our October sales prices of East India show an average advance of 1/4d. to 1d. per lb., some parcels of good quality and extra length of staple improving 1 1/2d. per lb., while inferior and short greys only advanced 1/4d. per lb. 263 bales Australian and a few small parcels of fine Buenos Ayres sold with spirit at 1d. per lb., higher than the London December sales.

The N. Y. *Economist* remarks in relation to the New York market:

Since the sales reported in our Wednesday's issue there has been nothing done from first hands, but among dealers the transactions we understand, have been quite large, the particulars of which are withheld from the public. Prices of all descriptions continue firm, but without buoyancy, it being supposed by those well informed, that prices have reached the top.

Poultry is coming into market freely, and there may be seen a large supply hanging up in the market every day.

Dealers are now giving \$9 per 100 pounds for Turkey, in good condition, and chickens bring 25 cts each. There is now and then small lots of game offered, but at present there is no steady supply or demand.

Clover seed is not in such good demand as it was some weeks since, and some of the operators in the article complain that they get their fingers in the machine and get squeezed. The demand for Southern supply is more quiet. Seed is now selling at \$6.00 @ 6.12 1/2 per bushel.

The home demand is very light, and buyers for our own trade are not anxious to make purchases, believing the price too high. Timothy remains steady and unchanged. First rate quality retails at 2.25. Red Top \$1.50 @ 1.75.

Eggs are coming in more freely, and are now bought at from 14 to 15 cents per dozen by the quantity.

Butter keeps steady at the same rates heretofore quoted; it is plenty and demand not good.

Good country cheese sells at prices ranging from 7 to 9 cents, according to quality. Of the article the supply is not very great.

Potatoes of the good fair common sorts, such as Western Reds, Merinos and Round Pinkies, bring from 65 to 70 cents. First quality white Chenagos and Mercers bring 75 cents, and the prospects are that they will be worth more.

Beans are coming in freely; we saw two wagon loads offering for sale yesterday, and for which only \$1.00 per bushel was offered. Very prime navy beans have sold at \$1.25.

Apples remain steady at the prices heretofore given, but we have not noted any offering in the market for many days, and the stock here does not seem to be very large. Good winter apples, well put up in barrels, will readily bring over \$4.00, but without actual sales we can not say how much.

## AMERICAN WEEDS

### USEFUL PLANTS,

OR

### AGRICULTURAL BOTANY,

By W. D. LARINGTON, M. D., West Chester, Pa., with additions by GEORGE THURBER, New York. A History and Description of all plants injurious or important to the American Farmer and Gardener; with nearly

THREE HUNDRED ILLUSTRATIONS.

### THE WEEDS

Which now infest our farms have, with few exceptions, been introduced from abroad; and being at first unnoticed, have spread from farm to farm until

IT NOW COSTS THE FARMERS OF AMERICA MILLIONS OF DOLLARS every year for the destruction of these Foreigners, or in the injury done to their crops.

Every Farmer should guard his ground from the; FIRST APPROACH OF HIS ENEMIES.

As a class-book for Agricultural Schools and Colleges—and a Hand-book for the Farmer—and for all public and private libraries this book is the most valuable addition yet made to our already large list of Agricultural Books.

Price \$1.50.

Sent by mail, postage paid, on receipt of price.

A. O. MOORE & CO.,

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## SEEDS! SEEDS!!

OUR Descriptive Priced Catalogue of Vegetable and Agricultural Seeds for 1859 is now ready for mailing to applicants enclosing a one cent stamp.

J. M. THORBUK & CO.

Seed Warehouse, 15 John-st. New York. N. B. A Catalogue of Tree and Shrub Seeds will be published shortly and mailed as above, containing directions for managing evergreen seeds, &c.

6-5w

## DAINES' AMERICAN DRAIN TILE MAKER.

The Best and Cheapest Tile Machine in the World.

Forty-one first Premiums awarded to it at State and County Fairs. First Premium at the National Fair, at Louisville, Ky., 1857.

The TILE MACHINE invented by JOHN DAINES, of Birmingham, Oakland county, Michigan, is now being manufactured in the most thorough manner, and is offered to the farming community as the

Cheapest, Most Labor-Saving and Most Complete Invention,

and enabling farmers to make their own Tiles, that has yet been put before the Agriculturists of the United States, at a reduced price.

These machines are made of iron, are easily worked, any man being able to manufacture a first rate article after a few hours practice.

They cost delivered in Detroit, only \$100. They have two dies, for three and four inch tiles, and extra dies to accompany the machine cost \$2.00 each.

These machines will manufacture per day, according to the force employed, from 150 to 250 RODS OF HORSESHOE OR PIPE TILE. The machine weighs but 500 pounds, and can be packed and sent to any part of the United States, or to foreign countries, as easily as a piano. With this machine, any farmer who has a fair quality of clay on his farm, can manufacture his own Tiles at a cheap rate, and easily save the price of the machine when in operation, takes up no more room than an ordinary sized kitchen table, it may be worked by two or three men as may be found most convenient and economical, or a man and two boys can keep it in full operation.

For Simplicity, Durability, Economy, Cheapness, and amount of work, this Tile Maker Challenges the World!

At the present time, when thorough draining has become a necessity on alluvial lands, it offers the simplest and cheapest means of furnishing farmers with a draining material far superior to any other material now used for that purpose.

Applications for these machines may be addressed to JOHN DAINES, Birmingham, Mich.

9-1f

## SEEDS! SEEDS! SEEDS!

THE Subscribers have on hand and for sale at wholesale and retail, a large and complete assortment of Garden, Flower and Field Seeds, obtained from the most reliable sources, both in this country and Europe. Of the growth of 1858, good and true to their marks—Farmers, gardeners and others in want of Seeds of almost any kind, can obtain from us those that will give entire satisfaction.

Catalogues may be had on application at our store, 160 Woodward Avenue, or by mail.

M. T. GARDNER & CO., Seedsmen.

Detroit, Feb. 24, 1859. 9-5w

## 50,000 PAPERS OF FLOWER SEEDS.

A very large assortment of Flower Seeds, annual and perennial, of the choicest varieties, put up in papers, with printed descriptions, for sale at five cents each, or at fifty cents per dozen papers. Catalogues furnished free. Orders, accompanied with the cash, for one dozen, or more papers selected by the purchaser will be forwarded by mail, postage prepaid.

M. T. GARDNER & CO., Seedsmen, 160 Woodward Avenue, Detroit. 9-5w

## HUNGARIAN GRASS, Millet, Chinese Sugar Cane, Clover, Timothy, Red Top, Blue Grass and Orchard Grass Seeds. Peas, Early and late varieties—Sweet Corn, Stowell's Evergreen Corn, Garden Beans, bush and pole of many kinds. For sale in quantities to suit by

M. T. GARDNER & CO., Seedsmen, Detroit, February 24, 1859. 9-5w

## SHORT HORNS FOR SALE.

I hereby offer for sale several head of young full blood Shorthorn stock, bred from my bull LENOX, to which was awarded the first premium of the State Agricultural Society in 1858. For further particulars address, D. M. UHL, Ypsilanti.

7-2m



## FOR SALE

## AMERICAN SEED STORE

22 Monroe Avenue, Detroit, Mich.

### PEABODY'S PROLIFIC CORN!

A NEW VARIETY.

It grows from three to ten ears on a stalk. Six ears planted by John W. Shaw, last year, produced one hundred bushels of sound corn. This Corn was originated by a careful scientific cultivator on Long Island. It comes up stout and is more forward than common corn. Plant two kernels in a hill, four feet apart each way.

PRICE—Fifty cents per quart, or Fifteen cents per ear.

### HUNGARIAN GRASS SEED!

100 BUSHELS FOR SALE.

This justly celebrated Grass Seed, has been raised for two years in Iowa and Wisconsin, and to some extent in Illinois and Michigan, the past season. All who have raised it, invariably bear testimony to its unprecedented yield. In some cases as high as seven, and rarely under four tons to the acre of a most healthy and nutritious Grass. It yields from 35 to 40 bushels of seed to the acre, which makes good feed for horses and cattle. They not only eat it with great relish, but it keeps them in a more healthy and better condition than any feed yet tried.

PRICE—\$3 per bushel.

We submit the following

### Testimonials:

OTTUMWA, IOWA, Jan. 22, 1858. To whom it may concern:—This is to certify that crops of Hungarian Grass were entered for premium at our Agricultural Fair last fall, varying from five to over seven tons to the acre of hay, and thirty-seven bushels to the acre of seed, and affidavits were made to the same.

Farmers who have raised it unite in giving the same a high recommendation, and the crop of Timothy was scarcely worth harvesting, yet the Hungarian was good, averaging not less than four tons to the acre throughout the country. Its qualities for feeding are spoken of in high terms by all who have used it.

L. D. MORSE,

Secretary of Wapello Co. Agricultural Society.

SALINE, MICH., Jan. 1859. Mr. J. J. Lyon, Sir:—In reply to your question asking "how I like the Hungarian Grass," I will say that it is the best thing I have ever raised for feeding stock, and I shall not raise any other hay hereafter. It cannot be too highly recommended.

Yours,

SAMUEL ROBINSON.

Mr. Irwin Peck, of Ypsilanti, says that "Farmers had better plough up their Timothy meadows and sow the Hungarian Grass, as ten acres of it is worth more for stock purposes than twenty acres of any other hay."

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Mr. J. J. Lyon, Sir:—In reply to your question asking "how I like the Hungarian Grass," I will say that it is the best thing I have ever raised for feeding stock, and I shall not raise any other hay hereafter. It cannot be too highly recommended.

Yours,

SAMUEL ROBINSON.

Mr. Irwin Peck, of Ypsilanti, says that "Farmers had better plough up their Timothy meadows and sow the Hungarian Grass, as ten acres of it is worth more for stock purposes than twenty acres of any other hay."

Farmers who have raised it unite in giving the same a high recommendation, and the crop of Timothy was scarcely worth harvesting, yet the Hungarian was good, averaging not less than four tons to the acre throughout the country. Its qualities for feeding are spoken of in high terms by all who have used it.

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